

FHWA-Indiana Environmental Document
CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM
GENERAL PROJECT INFORMATION

Road No./County:	U.S. Highway (US) 6/SR 51, Lake County
Designation Number(s):	1900012
Project Description/Termini:	Bridge Project, 0.84 Mile South of State Road (SR) 51/Interstate (I) 80/94

	Categorical Exclusion, Level 2 – Required Signatories: INDOT DE and/or INDOT ESD
X	Categorical Exclusion, Level 3 – Required Signatories: INDOT ESD
	Categorical Exclusion, Level 4 – Required Signatories: INDOT ESD and FHWA
	Environmental Assessment (EA) – Required Signatories: INDOT ESD and FHWA
	Additional Investigation (AI) – The proposed action included a design change from the original approved environmental document. Required Signatories must include the appropriate environmental approval authority

Approval

_____	_____
INDOT DE Signature and Date	INDOT ESD Signature and Date

FHWA Signature and Date	

Release for Public Involvement

_____	N/A	ADWP
INDOT DE Initials and Date		INDOT ESD Initials and Date
		March 2, 2023

Certification of Public Involvement

INDOT Consultant Services Signature and Date

INDOT DE/ESD Reviewer Signature and Date:

Name and Organization of CE/EA Preparer:

Ali Whitehead, Payton Fischer, and Tamra Reece, Hanson Professional Services Inc.

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Note: Refer to the most current INDOT CE Manual, guidance language, and other ESD resources for further guidance regarding any section of this form.

Part I – Public Involvement

Every Federal action requires some level of public involvement, providing for early and continuous opportunities throughout the project development process. **The level of public involvement should be commensurate with the proposed action.**

Does the project have a historic bridge processed under the Historic Bridges PA*?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
If No, then: Opportunity for a Public Hearing Required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

*A public hearing is required for all historic bridges processed under the Historic Bridges Programmatic Agreement between INDOT, FHWA, SHPO, and the ACHP.

Discuss what public involvement activities (legal notices, letters to affected property owners and residents (i.e. notice of entry), meetings, special purpose meetings, newspaper articles, etc.) have occurred for this project.

Notice of Entry letters were mailed to potentially affected property owners near the project area on January 11, 2021 notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area. A sample copy of the Notice of Entry letter is included in Appendix H, pages 2 to 3.

The project will meet the minimum requirements described in the current *Indiana Department of Transportation (INDOT) Project Development Public Involvement Procedures Manual* which requires the project sponsor to offer the public an opportunity to submit comments and/or request a public hearing. Therefore, a legal notice will appear in a local publication contingent upon the release of this document for public involvement. This document will be revised after the public involvement requirements are fulfilled.

Public Controversy on Environmental Grounds

Discuss public controversy concerning community and/or natural resource impacts, including what is being done during the project to minimize impacts.

At this time, there is no substantial public controversy concerning impacts to the community or to natural resources.

Part II - General Project Identification, Description, and Design Information

Sponsor of the Project: Indiana Department of Transportation (INDOT) INDOT District: LaPorte

Local Name of the Facility: US 6/SR 51

Funding Source (mark all that apply): Federal State Local Other*

*If other is selected, please identify the funding source: _____

PURPOSE AND NEED:

The need should describe the specific transportation problem or deficiency that the project will address. The purpose should describe the goal or objective of the project. The solution to the traffic problem should NOT be discussed in this section.

Need: The need for this project is due to the existing structure (Structure No. (6)51-45-01943 B, NBI 018870) showing signs of major deterioration of the deck, superstructure, and substructure. The rating of the deck, superstructure, and substructure are all rated fair with a condition rating of 5 on a scale of 1 to 9 with 1 being imminent failure and 9 being excellent. There is extensive cracking with delamination, spalling, and exposed reinforced steel. The secondary need is due to hydraulic insufficiency from the roadway profile being in a sag curve which allows for the overtopping of the bridge from Deep River. The roadway overtopping occurs during storms greater than a 10-year flood (Q₁₀) event, which leads to roadway closures (Appendix I, pages 2 to 8).

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Replacement of the existing bridge will eliminate the current structural and hydraulic deficiencies. This improves the condition of the bridge, overall travel in the area, and hydraulic capacity of the structure, meeting the purpose and need.

The logical termini of the US 6 project area are 0.84 mile south of SR 51/I-80/94 from the Veteran's Memorial Covered Bridge to the US 6/SR 51 Bridge over Deep River. This project demonstrates independent utility because it will improve the structure as an independent project and does not depend on any other planned projects.

OTHER ALTERNATIVES CONSIDERED:

Provide a header for each alternative. Describe all discarded alternatives, including the No Build Alternative. Explain why each discarded alternative was not selected. Make sure to state how each alternative meets or does not meet the Purpose and Need and why.

Alternative A – No Build: This alternative allows the existing structure to remain in place with no improvements. This alternative would result in continued deterioration of the structure, which would allow development of unsafe roadway conditions and likely increase costs of repairs at a later date. This alternative does not meet the purpose and need of the project as it does not restore the structural and hydraulic function of the existing deteriorated structure.

Alternative B – Bridge Replacement in Kind: This alternative involves replacement of the existing structure with a new bridge similar in type, length, and waterway opening. The hydraulic capacity of the crossing would remain the same. The roadway would still be overtopped during a Q₁₀ event, and the bridge opening would not be adequate to accommodate flow at the Q₁₀₀ event. Impacts would be similar to the preferred alternative. This alternative meets the primary purpose and need of restoring the structural integrity of the bridge but does not meet the secondary purpose and need of improving hydraulic sufficiency. Therefore, this alternative was dismissed from further consideration.

Alternative C – Bridge Replacement Fully Meeting Roadway Serviceability Requirements: This alternative involves raising the entire approach roadway between US 6/SR 51 over Deep River and US 6/SR 51 over Muck Pocket. The grade raise over the crossing with Muck Pocket would increase the hydraulic capacity to be adequate for a Q₁₀₀ event. The existing structure would be replaced with a new bridge of similar type and length. Roadway serviceability would be provided for the Q₁₀₀ event. Due to the grade raise, additional approach roadway work would be required to maintain access to multiple commercial properties east and west of US 6/SR 51 between Muck Pocket and Deep River to the north which would cause additional impacts than the preferred alternative. Since this alternative required a significant grade raise, a phased construction option is not feasible and a full closure with detour would be required. This alternative meets the purpose and need of the project but the additional cost to meet all desired hydraulics criteria is unwarranted. Therefore, this alternative was dismissed from further consideration.

Rehabilitation: This alternative was not considered due to the deteriorated condition of the existing structure.

The No Build Alternative is not feasible, prudent or practicable because (Mark all that apply)

- | | |
|---|-------------------------------------|
| It would not correct existing capacity deficiencies; | <input type="checkbox"/> |
| It would not correct existing safety hazards; | <input type="checkbox"/> |
| It would not correct the existing roadway geometric deficiencies; | <input type="checkbox"/> |
| It would not correct existing deteriorated conditions and maintenance problems; or | <input checked="" type="checkbox"/> |
| It would result in serious impacts to the motoring public and general welfare of the economy. | <input type="checkbox"/> |
| Other (Describe): It would not correct the hydraulic capacity of the structure. | <input checked="" type="checkbox"/> |

ROADWAY CHARACTER:

If the proposed action includes multiple roadways, complete and duplicate for each roadway.

Name of Roadway	<u>US 6/SR 51</u>		
Functional Classification:	<u>Principal Arterial – Other</u>		
Current ADT:	<u>16,398</u>	VPD (2021)	Design Year ADT: <u>17,303</u> VPD (2044)
	<u>1,601</u>		
Design Hour Volume (DHV):	<u>VPH</u>	Truck Percentage (%)	<u>8% DHV</u>
Designed Speed (mph):	<u>35 mph</u>	Legal Speed (mph):	<u>35 mph</u>

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	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	Full Depth HMA/Composite		Full Depth HMA/Composite	
Pavement Width:	44	ft.	44	ft.
Shoulder Width:	5 to 10	ft.	5 to 10	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	5	ft. (right)	5	ft. (right)

Setting: Urban Suburban Rural
 Topography: Level Rolling Hilly

BRIDGES AND/OR SMALL STRUCTURE(S):

If the proposed action includes multiple structures, complete and duplicate for each bridge and/or small structure. Include both existing and proposed bridge(s) and/or small structure(s) in this section.

Structure/NBI Number(s): (6)51-45-01943 B/NBI 018870 Sufficiency Rating: 85, INDOT Inspection 11/5/2020
 (Rating, Source of Information)

	Existing		Proposed
Bridge/Structure Type:	Reinforced concrete slab		Cast-in-place concrete slab superstructure with pile bent substructure
Number of Spans:	16		21
Weight Restrictions:	None	ton	None
Height Restrictions:	None	ft.	None
Curb to Curb Width:	39	ft.	39
Outside to Outside Width:	47	ft.	47
Shoulder Width:	5 (right) 10 (left)	ft.	5 (right) 10 (left)

Describe impacts and work involving bridge(s), culvert(s), pipe(s), and small structure(s). Provide details for small structure(s): structure number, type, size (length and dia.), location and impacts to water. Use a table if the number of small structures becomes large. If the table exceeds a complete page, put it in the appendix and summarize the information below with a citation to the table.

One bridge and two small structures are within the project area. The existing structure ((6)51-45-01943 B, NBI 018870) is a 289-ft. long 16-span reinforced concrete slab bridge with an out-to-out width of 47 ft. This structure is to be replaced with a 21-span cast-in-place concrete slab superstructure on pile bent substructure units. The project will include lengthening the bridge approximately 242 ft. to a total length of approximately 540 ft. It will also include new reinforced concrete bridge approaches, bridge railing, and guardrail. Str. 1 is a 15-in. reinforced concrete pipe and will be replaced in kind. Survey work was conducted and could not locate Str. 2. It is assumed it was previously removed or capped and is assumed not present.

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

	Yes	No
Is a temporary bridge proposed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is a temporary roadway proposed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the project involve the use of a detour or require a ramp closure? (describe below)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made for access by local traffic and so posted.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made for through-traffic dependent businesses.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made to accommodate any local special events or festivals.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will the proposed MOT substantially change the environmental consequences of the action?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there substantial controversy associated with the proposed method for MOT?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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Will the project require a sidewalk, curb ramp, and/or bicycle lane closure? (describe below) Yes No
 Provisions will be made for access by pedestrians and/or bicyclist and so posted (describe below).

Discuss closures, detours, and/or facilities (if any) that will be provided for maintenance of traffic. Any known impacts from these temporary measures should be quantified to the extent possible, particularly with respect to properties such as Section 4(f) resources and wetlands. Discuss any pedestrian/bicycle closures. Any local concerns about access and traffic flow should be detailed as well.

The MOT for the project area will be a full closure of US 6 with detour route. The detour route is approximately 16.4 miles utilizing US 6, SR 149, and US 20. The detour is anticipated to add an additional 14.1 miles resulting in approximately 26 minutes of additional driving time. Access to local businesses and residents shall be maintained at all times.

The Lake County Highway Department responded on April 22, 2021 with concerns about the local detour routes impacting county roads (CR). They requested that they be notified if Grand Boulevard (Blvd.)/North Lake Park Avenue (Ave.) between Central Ave. and 37th Ave. (Ridge Road) will be used as a local detour route since it is a county road. All applicable recommendations are included in the Environmental Commitments section of this Categorical Exclusion (CE) document

The closures/lane restrictions will pose a temporary inconvenience to traveling motorists (including school buses and emergency services); however, no significant delays are anticipated, and all inconveniences and delays will cease upon project completion.

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: \$ 795,000 (2024) Right-of-Way: \$ 0 (2024) Construction: \$ 3,492,589 (2024)

Anticipated Start Date of Construction: April 2024

RIGHT OF WAY:

Land Use Impacts	Amount (acres)	
	Permanent	Temporary
Residential	0.122	0
Commercial	0.134	0.094
Agricultural	0	0
Forest	0	0
Wetlands	0	0
Other: Vacant	1.941	0
Other:	0	0
TOTAL	2.197	0.094

Describe both Permanent and Temporary right-of-way and describe their current use. Typical and Maximum right-of-way widths (existing and proposed) should also be discussed. Any advance acquisition, reacquisition or easements, either known or suspected, and their impacts on the environmental analysis should be discussed.

The apparent existing right-of-way (ROW) is the edge of pavement throughout the project area. The project requires 1.47 acres of reacquired ROW consisting of mowed residential lawns, wetlands, and shrub-scrub/forested areas.

The project requires approximately 2.197 acres of permanent ROW and 0.094 acres of temporary ROW along the length of the project area. This includes mowed residential lawns, commercial lots, wetlands, and forested areas. ROW widths range from 20 ft. to 97 ft. from the edge of pavement. ROW locations are denoted in the project plans in Appendix B (page 10).

If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately.

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Part III – Identification and Evaluation of Impacts of the Proposed Action

SECTION A - EARLY COORDINATION:

List the date(s) coordination was sent and all resource agencies that were contacted as a part of the development of this Environmental Study. Also, include the date of their response or indicate that no response was received.

Early coordination letters were sent on April 13, 2021 and January 27, 2022 (Appendix C, pages 2 to 5).

Agency	Date Sent	Date Response Received	Appendix
City of Lake Station	April 13, 2021	No response received	N/A
FHWA	April 13, 2021	No response received	N/A
Indiana Department of Environmental Management (IDEM)	April 13, 2021	April 13, 2021	Appendix C, pages 9-16
Indiana Geological and Water Survey (IGWS)	April 13, 2021	April 13, 2021	Appendix C, pages 6-8
Indiana Department of Natural Resources – Division of Fish and Wildlife (IDNR-DFW)	April 13, 2021	May 12, 2021	Appendix C, pages 17-20
IDNR – Outdoor Recreation	April 13, 2021 and January 27, 2022	April 20, 2021 and January 27, 2022	Appendix C, pages 22-25
INDOT - Aviation	April 13, 2021	April 14, 2021	Appendix C, page 26
INDOT Environmental Services Division (ESD) - LaPorte District	April 13, 2021	April 14, 2021	Appendix C, page 21
INDOT Project Manger	April 13, 2021	No response received	N/A
Lake County Commissioners	April 13, 2021	No response received	N/A
Lake County Emergency Management	April 13, 2021	No response received	N/A
Lake County Health Department	April 13, 2021	No response received	N/A
Lake County Highway Department	April 13, 2021	April 22, 2021	Appendix C, page 27
Lake Station City Council	April 13, 2021	No response received	N/A
Lake Station Historical Society	April 13, 2021	No response received	N/A
Lake Station Parks and Recreation Department	April 13, 2021	No response received	N/A
Little Calumet River Basin Development Commission (LCRBDC)	April 13, 2021	No response received	N/A
Northwestern Indiana Regional Planning Commission (NIRPC)	April 13, 2021	No response received	N/A
U.S. Army Corps of Engineers (USACE)	April 13, 2021	No response received	N/A
U.S. Department of Housing and Urban Development (HUD)	April 13, 2021	No response received	N/A

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All applicable recommendations are included in the Environmental Commitments section of this Categorical Exclusion (CE) document

SECTION B – ECOLOGICAL RESOURCES:

Streams, Rivers, Watercourses & Other Jurisdictional Features

- Federal Wild and Scenic Rivers
- State Natural, Scenic or Recreational Rivers
- Nationwide Rivers Inventory (NRI) listed
- Outstanding Rivers List for Indiana
- Navigable Waterways

Presence

X

Impacts

Yes	No
X	

Total stream(s) in project area: 861 Linear feet Total impacted stream(s): 106.3 Linear feet

Stream Name	Classification	Total Size in Project Area (linear feet)	Impacted linear feet	Comments (i.e. location, flow direction, likely Water of the US, appendix reference)
Deep River	R4SBC, Perennial	861 linear feet (lf.)	106.3 lf.	Located west of the US 6 bridge, flows east to west on north end of investigated area and north to south on west side of investigated area, likely Water of the U.S (Appendix F)

Describe all streams, rivers, watercourses and other jurisdictional features adjacent or within the project area. Include whether or not impacts (both permanent and temporary) will occur to the features identified. Include if the streams or rivers are listed on any federal or state lists for Indiana. Include if features are likely subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Based on the desktop review, the aerial map of the project area (Appendix B, page 4), and the Red Flag Investigation (RFI) report (Appendix E, page 4), there are four streams, rivers, watercourse, or other jurisdictional features within the 0.5 mile search radius. There is one stream, river, watercourse, or other jurisdictional feature present within or adjacent to the project area. That number was confirmed by the site visit on May 17, 2021 by Hanson Professional Services Inc. (Hanson).

No Federal, Wild and Scenic Rivers; State natural, Scenic, and Recreational Rivers; Outstanding Rivers for Indiana; navigable waterways or National Rivers Inventory waterways are present in or adjacent to the project area.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT Ecology and Waterway Permitting Office (EWPO) on March 1, 2022. Please refer to Appendix F, pages 2 to 46, for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that one likely jurisdictional perennial stream is located within the investigated area and will be impacted by the project. The USACE makes all final determinations regarding jurisdiction.

Deep River is a perennial stream located west of the bridge over Muck Pocket that flows parallel to the US 6 roadway, which ultimately flows into Little Calumet River, a traditionally navigable waterway (TNW). The river's ordinary high water mark (OHWM) was approximately 160 ft. wide and 6 ft. deep. Upstream drainage comes from tributaries within an urban and agricultural landscape. Approximately 861 lf. of stream is within the investigated area.

Approximately 106.3 lf. (0.011 acre) of permanent impacts to Deep River will occur due to installation of Class I riprap and grading/excavation for the bridge construction. Approximately 242.7 lf. (0.043 acre) of temporary impacts to Deep River will occur from areas outside of grading/excavation and riprap that will be affected from equipment staging and access to construction areas. Avoidance was not practicable, as project limits have been constrained to the smallest possible area to complete the project.

Per coordination with the INDOT EWPO on September 14, 2022, a USACE 404 Nationwide Permit (NWP), IDEM Water Quality Certification (WQC) 401 Individual Permit (IP), and an IDNR Construction in a Floodway (CIF) Permit will be required for impacts to Deep River. Mitigation will likely not be required since impacts to Deep River are less than 300 lf. and cumulative impacts to the river are less than 0.03 acre. This will be determined during permitting.

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The IDNR-DFW responded on May 12, 2021, with recommendations on wildlife passage, bank stabilization, riparian habitat, and measures to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources (Appendix C, pages 17 to 20). All applicable recommendations are included in the Environmental Commitments sections of this CE document.

Open Water Feature(s)	Presence	Impacts	
		Yes	No
Reservoirs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lakes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Farm Ponds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Retention/Detention Basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Storm Water Management Facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: <u>Open Water under Bridge and at Muck Pocket</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Describe all open water feature(s) identified adjacent or within the project area. Include whether or not impacts (both permanent and temporary) will occur to the features identified. Include if features are likely subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Based on the desktop review, the aerial map of the project area (Appendix B, page 4), and the RFI report (Appendix E, page 4), there is one open water feature within the 0.5 mile search radius. There are no open water features within or adjacent to the project area. That number was updated to two by the site visit on May 17, 2021 by Hanson.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT EWPO on March 1, 2022. Please refer to Appendix F, pages 2 to 46 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that two likely jurisdictional open water areas are located within the investigated area and will be impacted by the project. The USACE makes all final determinations regarding jurisdiction.

Open Water 1 is located northeast of the US 6 bridge over Muck Pocket. Open Water 1 is considered an excellent quality open water area and is classified under the Cowardin Classification system as Palustrine, Aquatic Bed – Floating Vascular/Unconsolidated Bottom, Semipermanently Flooded (PAB4/UBF). Approximately 0.172 acre of Open Water 1 occurs within the investigated area. Open Water 1 connects to Deep River through seasonal flooding.

Open Water 2 is located below the US 6 bridge over Muck Pocket. Open Water 2 is considered a poor quality open water area and is classified under the Cowardin Classification System as Palustrine, Unconsolidated Bottom, Mud, Intermittently Exposed (PUB3G). Approximately 0.141 acre of Open Water 2 occurs within the investigated area. Open Water 2 connects to Deep River through seasonal flooding.

Approximately 0.141 acre of permanent impacts to Open Water 2 will occur due to Class I riprap placement for bank stabilization, grading/excavation, and the bridge replacement. No impacts to Open Water 1 are anticipated. There are no temporary impacts to the open water resources. Avoidance was not practicable, as project limits have been constrained to the smallest possible area to complete the project. Open Water 1 will be marked on the plans as "Do Not Disturb". This is included as a firm commitment in the Environmental Commitments Section of this CE document.

Per coordination with the INDOT EWPO on September 14, 2022, due to impacts to likely WOTUS, a USACE 404 NWP, IDEM WQC 401 IP, and IDNR CIF Permit will be required. Mitigation will likely be required since cumulative impacts to this WOTUS will be above 0.1 acre and will be determined during permitting.

The IDNR-DFW responded on May 12, 2021, with recommendations on wildlife passage, bank stabilization, riparian habitat, and measures to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources (Appendix C, pages 17 to 20). All applicable recommendations are included in the Environmental Commitments sections of this CE document.

Wetlands	Presence	Impacts	
		Yes	No
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Total wetland area: 0.623 Acre(s) Total wetland area impacted: 0.352 Acre(s)

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(If a determination has not been made for non-isolated/isolated wetlands, fill in the total wetland area impacted above.)

Wetland No.	Classification	Total Size (Acres)	Impacted Acres	Comments (i.e. location, likely Water of the US, appendix reference)
Wetland A	PEM1C	0.193	0.176	East of US 6 bridge, likely jurisdictional (Appendix F)
Wetland B	PEM1C	0.065	0.038	Northeast of US 6 bridge south of parking lot, likely jurisdictional (Appendix F)
Wetland C	PEM1C/ PSS1C	0.288	0.138	West of US 6 bridge, likely jurisdictional (Appendix F)
Wetland D	PFO1C	0.017	N/A	East of US 6 bridge within forested area, likely jurisdictional, no impacts expected (Appendix F)
Wetland E	PFO1C/ PSS1C	0.060	N/A	Northeast of US 6 bridge south of parking lot, likely jurisdictional, no impacts expected (Appendix F)

Wetlands (Mark all that apply)

Wetland Determination
 Wetland Delineation
 USACE Isolated Waters Determination

Documentation

X
X

ESD Approval Dates

March 1, 2022
March 1, 2022

Improvements that will not result in any wetland impacts are not practicable because such avoidance would result in (Mark all that apply and explain):

- Substantial adverse impacts to adjacent homes, business or other improved properties;
- Substantially increased project costs;
- Unique engineering, traffic, maintenance, or safety problems;
- Substantial adverse social, economic, or environmental impacts, or
- The project not meeting the identified needs.

X

Describe all wetlands identified adjacent or within the project area. Include whether or not impacts (both permanent and temporary) will occur to the features identified. Include if features are likely subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Based on the desktop review, the aerial map of the project area (Appendix B, page 4), and the RFI report (Appendix E, page 4), there are 10 wetlands within the 0.5 mile search radius. One mapped wetland is located adjacent to the project area. This number was increased by five additional wetlands within the project area by the site visits on May 12, 2022 and June 14, 2022, by Hanson.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT EWPO on March 1, 2022. Please refer to Appendix F, pages 2 to 46 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that five likely jurisdictional wetlands are located within the investigated area. Three likely jurisdictional wetlands will be impacted by the project. The USACE makes all final determinations regarding jurisdiction.

Wetland A is an approximately 0.193-acre palustrine emergent wetland (PEM) of average quality that is located to the east of the US 6 bridge and extends north along US 6. Hydrology within Wetland A is due to its location within the oxbow of Deep River, which receives water from seasonal flooding. Wetland A would likely be considered jurisdictional by the USACE because of seasonal flooding from Deep River.

Wetland B is an approximately 0.065-acre PEM wetland of average quality that is located east of US 6 and south of the parking lot area. Hydrology within Wetland B is due to its location within the oxbow of Deep River which receives water from seasonal flooding. Wetland B would likely be considered jurisdictional by the USACE because of seasonal flooding from Deep River.

Wetland C is an approximately 0.288-acre PEM/palustrine shrub-scrub (PSS) wetland of average quality that is located west of US 6 between the roadway and Deep River. Hydrology within Wetland C is due to drainage from the US 6 roadway and seasonal flooding from Deep River. Wetland C would likely be considered jurisdictional by the USACE because of adjacency to Deep River.

Wetland D is an approximately 0.017-acre palustrine forested (PFO) wetland of excellent quality that is located east of US 6 and Wetland A. Hydrology within Wetland D is due to its location within the oxbow of Deep River, which receives water from seasonal

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flooding and drainage from the surrounding forest. Wetland D would likely be considered jurisdictional by the USACE because of seasonal flooding from Deep River.

Wetland E is an approximately 0.060-acre PFO/PSS wetland of excellent quality that is located east of US 6 and south of the parking lot area. Hydrology within Wetland E is due to its location within the oxbow of Deep River which receives water from seasonal flooding. Wetland E would likely be considered jurisdictional by the USACE because of seasonal flooding from Deep River.

No impacts to Wetlands D and E are anticipated. Permanent impacts are expected for Wetlands A, B, and C due to channel clearing, bridge construction, and Class 1 riprap placement for bank stabilization. Temporary impacts are expected for Wetlands A and C due to access lay-down areas and equipment staging. Total cumulative permanent wetland impacts are approximately 0.352 acre and total temporary wetland impacts are 0.125 acre. Avoidance was not practicable, as project limits have been constrained to the smallest possible area needed to complete the project. Wetland D and E will be marked on the plans as "Do Not Disturb". This is included as a firm commitment in the Environmental Commitments Section of this CE document.

Per coordination with the INDOT EWPO on September 14, 2022, due to impacts to likely Waters of the U.S. a USACE 404 NWP, IDEM WQC 401 IP, and IDNR CIF Permit will be required. Mitigation will likely be required since cumulative impacts to wetlands will be above 0.1 acre and will be determined during permitting.

The IDNR-DFW responded on May 12, 2021, with recommendations on wildlife passage, bank stabilization, riparian habitat, and measures to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources (Appendix C, pages 17 to 20). All applicable recommendations are included in the Environmental Commitments sections of this CE document.

Terrestrial Habitat

Presence

Impacts

Yes	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Total terrestrial habitat in project area: 0.54 Acre(s) Total tree clearing: 0.35 Acre(s)

Describe types of terrestrial habitat (i.e. forested, grassland, farmland, lawn, etc) adjacent or within the project area. Include whether or not impacts will occur to habitat identified. Include total terrestrial habitat impacted and total tree clearing that will occur. Discuss measure to avoid, minimize, and mitigate if impacts will occur.

Based on a desktop review, site visits on May 12 and June 14, 2022 by Hanson, and the aerial map of the project area (Appendix B, page 4), there are roadside grasses, forest, and riparian zones surrounding the project area. The dominant species include common reed (*Phragmites australis*), reed canary grass (*Phalaris arundinacea*), garden yellow rocket (*Barbarea vulgaris*), orchard grass (*Dactylis glomerata*), and yellow marsh marigold (*Caltha palustris*). Approximately 0.54 acre of terrestrial habitat will be disturbed due to the bridge replacement and installation of riprap.

Approximately 0.35 acre of trees will be impacted. The trees are clearly demarcated and were identified as slippery elm (*Ulmus rubra*), green ash (*Fraxinus pennsylvanica*), eastern cottonwood (*Populus deltoides*), silver maple (*Acer saccharinum*) and boxelder (*Acer negundo*). The contractor will remove the trees during the inactive season. Avoidance alternatives would not be practical as the project limits have been constrained to the smallest possible area to complete the project. Tree removal Avoidance and Minimization Measures (AMMs) were accepted as part of the IPaC coordination. Tree mitigation is anticipated and will be determined during the permitting process.

The IDNR-DFW responded on May 12, 2021 with recommendations for revegetation, erosion control, and tree removal dates (Appendix C, pages 17 to 20). All applicable recommendations are included in the Environmental Commitments section of this CE document.

**Protected Species
Federally Listed Bats**

Information for Planning and Consultation (IPaC) determination key completed
 Section 7 informal consultation completed (IPaC cannot be completed)
 Section 7 formal consultation Biological Assessment (BA) required

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

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Determination Received for Listed Bats from USFWS: NE NLAA LAA

Other Species not included in IPaC

Additional federal species found in project area (based on IPaC species list)	Yes	No
State species (not bird) found in project area (based upon consultation with IDNR)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Migratory Birds

Known usage or presence of birds (i.e. nests)	Yes	No
State bird species based upon coordination with IDNR	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Discuss IDNR coordination and species identified. Describe USFWS Section 7 consultation and determination received for Indiana bat and northern long-eared bat impacts. Discuss if other federally listed species were identified. If so, include consultation that has occurred and the determination that was received. Discuss if migratory birds have been observed and any impacts.

Based on a desktop review and the RFI report (Appendix E, page 6), the IDNR-DFW Lake County Endangered, Threatened, and Rare (ETR) Species List has been checked. According to the IDNR-DFW early coordination response letter dated May 12, 2021 (Appendix C, page 17), the Natural Heritage Program’s Database has been checked and indicated that the state endangered Blanding’s turtle (*Emydoidea blandingii*) is located within 0.5 mile of the project area. To minimize impacts to the turtle, the IDNR-DFW recommends an entrenched silt fence be installed along the border of the work area on the east side of the bridge and east side of the road just north of the bridge, where feasible, to prevent Blanding’s turtles from entering the area. This firm commitment is included in the *Environmental Commitments* section of this document.

Project information was submitted through the USFWS’s Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, pages 42 to 58). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally endangered northern long-eared bat (NLEB) (*Myotis septentrionalis*). No additional species were generated in the IPaC species list other than the Indiana bat and NLEB.

The project qualifies for the *Range-wide Programmatic Informal Consultation for the Indiana Bat and Northern Long-eared Bat*, dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and USFWS. A bridge inspection occurred on May 17, 2021 and no evidence of bats were seen or heard on or under the bridge (Appendix C, pages 59 to 66). USFWS Bridge/Structure Assessments are only valid for two years. If construction will begin after May 17, 2023, an inspection of the structure by a qualified individual, must be performed. Inspection of the structure should check for presence of bats/bat indicators and/or presence of birds. The results of the inspection must indicate no signs of bats or birds. If signs of bats or birds are documented during this inspection, the INDOT District Environmental Manager must be contacted immediately. This firm commitment is included in the *Environmental Commitments* section of this document.

An effect determination key was completed on February 4, 2022, and based on the responses provided, the project was found to “May Affect – Not Likely to Adversely Affect (NLAA) the Indiana bat and/or the NLEB (Appendix C, pages 28 to 41). INDOT reviewed and verified the effect finding on July 26, 2022 and requested USFWS’s review of the finding. No response was received from USFWS within the 14-day review period; therefore, it was concluded they concur with the finding. General construction, lighting, and tree removal AMMs are applicable to this project. AMMs and/or commitments are included as firm commitments in the *Environmental Commitments* section of this document

Structure (6)51-45-01943/NBI 018870 over Muck Pocket has shown evidence of use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA) during the May 17, 2021 inspection. Avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the “Potential Migratory Bird on Structure” Recurring Special Provision (RSP). This firm commitment is included in the *Environmental Commitments* of this document.

This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act, as amended. If new information on endangered species at the site becomes available, or if project plans are changed, USFWS will be contacted for consultation.

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Geological and Mineral Resources

- Project located within the Indiana Karst Region
- Karst features identified within or adjacent to the project area
- Oil/gas or exploration/abandoned wells identified in the project area

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Date Karst Evaluation reviewed by INDOT EWPO (if applicable): _____

Discuss if project is located in the Indiana Karst Region and if any karst features have been identified in the project area (from RFI). Discuss response received from IGWS coordination. Discuss if any mines, oil/gas, or exploration/abandoned wells were identified and if impacts will occur. Include discussion of karst study/report was completed and results. (Karst investigation must comply with the current Protection of Karst Features during Planning and Construction guidance and coordinated and reviewed by INDOT EWPO)

Based on a desktop review, the project is located outside the designated karst region of Indiana as outlined in the July 15, 2021 Protection of Karst Features during Project Management and Construction. According to the topo map of the project area (Appendix B, page 3) and the RFI report (Appendix E, page 4), there are no karst features identified within or adjacent to the project area. In the early coordination response on April 13, 2021, the IGWS did not indicate that karst features exist in the project area. The IGWS did indicate high liquefaction potential, a floodway, high potential for bedrock resources, and low potential for sand and gravel resources (Appendix C, pages 6 to 8). Response from IGWS has been communicated with the designer on April 13, 2021. No impacts are expected.

SECTION C – OTHER RESOURCES

Drinking Water Resources

- Wellhead Protection Area(s)
- Source Water Protection Area(s)
- Water Well(s)
- Urbanized Area Boundary
- Public Water System(s)

Presence

<input type="checkbox"/>
<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>

Impacts

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

- Is the project located in the St. Joseph Sole Source Aquifer (SSA):
- If Yes, is the FHWA/EPA SSA MOU Applicable?
- If Yes, is a Groundwater Assessment Required?

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

Check the appropriate boxes and discuss each topic below. Provide details about impacts and summarize resource-specific coordination responses and any mitigation commitments. Reference responses in the Appendix.

The project is located in Lake County, which is not located within the area of the St. Joseph Sole Source Aquifer, the only legally designated sole source aquifer in the state of Indiana. Therefore, the FHWA/Environmental Protection Agency (EPA) Sole Source Aquifer Memorandum of Understanding (MOU) is not applicable to this project, a detailed groundwater assessment is not needed, and no impacts are expected.

The IDEM's Wellhead Proximity Determinator website (<http://www.in.gov/idem/cleanwater/pages/wellhead/>) was accessed on March 17, 2021 by Hanson. This project is not located within a Wellhead Protection Area but is located within a Source Water Area. The IDEM Source Water Assessment Program identifies Lake Station Water Department as "moderately high" susceptibility to contamination. An early coordination letter was sent to the City of Lake Station on April 13, 2021. No response was received within the 30-day time frame. Therefore, it is assumed that no impacts are anticipated.

The IDNR Water Well Record Database website (<https://www.in.gov/idnr/water/3595.htm>) was accessed on March 18, 2021 by Hanson. The nearest well was on the northern side of the project area. The feature will not be affected because the project area is not expected to extend to the well's location. Therefore, no impacts are expected. Should it determined during the ROW phase that these wells will be affected, a cost to cure will likely be included in the appraisal to restore the wells.

Based on the desktop review of the INDOT MS4 website (<https://entapps.indot.in.gov/MS4/>) Hanson on March 18, 2021, this

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project is located in an Urban Area Boundary (UAB). An early coordination letter was sent to the MS4 coordinator on April 13, 2021. The coordinator did not respond within the 30-day time frame.

Based on a desktop review, a site visit on May 17, 2021 by Hanson, and the aerial map of the project area (Appendix B, page 4), this project is located where there is a public water system. The public water system will not be affected because of implementation of erosion control measures. An early coordination letter was sent on date, to the City of Lake Station and Lake County Health Department on April 13, 2021. No response was received within the 30-day time frame.

Floodplains

	<u>Presence</u>	<u>Impacts</u>	
		Yes	No
Project located within a regulated floodplain	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Longitudinal encroachment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Transverse encroachment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Homes located in floodplain within 1000' up/downstream from project	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If applicable, indicate the Floodplain Level?

Level 1 Level 2 Level 3 Level 4 Level 5

Use the IDNR Floodway Information Portal to help determine potential impacts. Include floodplain map in appendix. Discuss impacts according to the classification system. If encroachment on a flood plain will occur, coordinate with the Local Flood Plain Administrator during design to insure consistency with the local flood plain planning.

Based on a desktop review of the IDNR Indiana Floodway Information Portal (INFIP) website (<http://dnrmaps.dnr.in.gov/appsphp/fdms/>) by Hanson on August 4, 2021, and the RFI report (Appendix E, page 4), this project is located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, page 37). An early coordination letter was sent on April 13, 2021, to the local floodplain administrator. The floodplain administrator did not respond within the 30-day time frame. This project qualifies as a Category 4 per the current INDOT CE Manual, which states, there are no homes are located within the base floodplain within 1,000 ft. upstream and one home is located within the base floodplain within 1,000 ft. downstream. The structure will have an effective capacity such that backwater surface elevations are not expected to substantially increase. As a result, there will be no substantial adverse impacts on natural and beneficial floodplain values; there will be no substantial change in flood risks; and there will be no substantial increase in potential for interruption or termination of emergency service or emergency evacuation routes; therefore, it has been determined that this encroachment is not substantial.

Farmland

	<u>Presence</u>	<u>Impacts</u>	
		Yes	No
Agricultural Lands	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prime Farmland (per NRCS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Total Points (from Section VII of CPA-106/AD-1006*) _____

**If 160 or greater, see CE Manual for guidance.*

Discuss existing farmland resources in the project area, impacts that will occur to farmland, and mitigation and minimization measures considered.

Based on a desktop review, a site visit on May 17, 2021 by Hanson, the aerial map of the project area (Appendix B, page 4), there is no land that meets the definition of farmland under the Farmland Protection Policy Act (FPPA) within or adjacent to the project area. The requirements of the FPPA do not apply to this project; therefore, no impacts are expected.

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SECTION D – CULTURAL RESOURCES

Minor Projects PA	Category(ies) and Type(s) <input type="text" value="Category B-4 and B-12"/>	INDOT Approval Date(s) <input type="text" value="June 23, 2021"/>	N/A <input type="text"/>
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Full 106 Effect Finding

No Historic Properties Affected No Adverse Effect Adverse Effect

Eligible and/or Listed Resources Present

NRHP Building/Site/District(s) Archaeology NRHP Bridge(s)

Documentation Prepared (mark all that apply)

APE, Eligibility and Effect Determination
 800.11 Documentation
 Historic Properties Report or Short Report
 Archaeological Records Check and Assessment
 Archaeological Phase Ia Survey Report
 Archaeological Phase Ic Survey Report
 Other:

ESD Approval Date(s)

SHPO Approval Date(s)

MOA Signature Dates (List all signatories)

Memorandum of Agreement (MOA)

If the project falls under the MPPA, describe the category(ies) that the project falls under and any approval dates. If the project requires full Section 106, use the headings provided. The completion of the Section 106 process requires that a Legal Notice be published in local newspapers. Please indicate the publication date, name of the paper(s) and the comment period deadline. Include any further Section 106 work which must be completed at a later date, such as mitigation from a MOA or avoidance commitments.

On July 23, 2021 the INDOT Cultural Resource Office (CRO) determined that this project falls within the guidelines of Category B Type 4 and 12 under the Minor Projects Programmatic Agreement (MPPA) (Appendix D, pages 2 to 5). Category B, Type 4 projects include, "installation of new safety appurtenances, including but not limited to, guardrails, barriers, glare screens, and crash attenuators." Category B, Type 12 projects include, "replacement, widening, or raising the elevation of the superstructure on existing bridges, and bridge replacement projects (when both the super structure and substructure are removed)." No further consultation is required. This completes the Section 106 process and the responsibilities of the FHWA under Section 106 have been fulfilled.

SECTION E – SECTION 4(f) RESOURCES/ SECTION 6(f) RESOURCES

	<u>Presence</u>	<u>Use</u>	
		Yes	No
Parks and Other Recreational Land			
Publicly owned park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Publicly owned recreation area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other (school, state/national forest, bikeway, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wildlife and Waterfowl Refuges			
National Wildlife Refuge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
National Natural Landmark	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State Wildlife Area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State Nature Preserve	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Historic Properties			
Site eligible and/or listed on the NRHP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Evaluations Prepared

Programmatic Section 4(f)	<input type="checkbox"/>
"De minimis" Impact	<input type="checkbox"/>
Individual Section 4(f)	<input type="checkbox"/>
Any exception included in 23 CFR 774.13	<input type="checkbox"/>

Discuss Programmatic Section 4(f) and "de minimis" Section 4(f) impacts in the discussion below. Individual Section 4(f) documentation must be included in the appendix and summarized below. Discuss proposed alternatives that satisfy the requirements of Section 4(f). FHWA has identified various exceptions to the requirement for Section 4(f) approval. Refer to 23 CFR § 774.13 - Exceptions.

Section 4(f) of the U.S. Department of Transportation Act of 1966 prohibits the use of certain public and historic lands for federally funded transportation facilities unless there is no feasible and prudent alternative. The law applies to significant publicly owned parks, recreation areas, wildlife / waterfowl refuges, and NRHP eligible or listed historic properties regardless of ownership. Lands subject to this law are considered Section 4(f) resources.

Based on a desktop review, the aerial map of the project area (Appendix B, page 4), and the RFI report (Appendix E, page 3), there are 11 potential 4(f) resources located within the 0.5-mile search radius. According to additional research, and by the site visit on May 17, 2022 by Hanson, there are two 4(f) resources located within or adjacent to the project area. Riverview Park is located on the east side of US 6. Veterans Memorial Covered Bridge is on the west side of US 6 and leads to Veterans Park and Bicentennial Park. Both Riverview Park and the covered bridge are publicly owned by the City of Lake Station and are adjacent to the project area. Access to the public recreation sites will be maintained throughout construction. The project will not use this resource by taking permanent right of way and will not indirectly use the resource in such a way that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired. Therefore, no 4(f) use is expected.

Section 6(f) Involvement

Presence

Use

Section 6(f) Property

Yes

No

Discuss Section 6(f) resources present or not present. Discuss if any conversion would occur as a result of this project. If conversion will occur, discuss the conversion approval.

The U.S. Land and Water Conservation Fund Act of 1965 established the Land and Water Conservation Fund (LWCF), which was created to preserve, develop, and assure accessibility to outdoor recreation resources. Section 6(f) of this Act prohibits conversion of lands purchased with LWCF monies to a non-recreation use.

A review of 6(f) properties on the INDOT ESD website revealed a total of 57 properties in Lake County (Appendix I, pages 9 and 10). One 6(f) property, Riverview Park, is located adjacent to the project area. Early coordination letters were sent to IDNR – Outdoor Recreation on April 13, 2021 and January 27, 2022. Responses were received on April 17, 2021 and January 27, 2022 stating there are no anticipated impacts to the 6(f) resource. Therefore, there will be no impacts to 6(f) resources

SECTION F – Air Quality

STIP/TIP and Conformity Status of the Project

- Is the project in the most current STIP/TIP?
- Is the project located in an MPO Area?
- Is the project in an air quality non-attainment or maintenance area?
- If Yes, then:
 - Is the project in the most current MPO TIP?
 - Is the project exempt from conformity?
- If No, then:
 - Is the project in the Transportation Plan (TP)?
 - Is a hot spot analysis required (CO/PM)?

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

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Location in STIP: FY 2022-2026 STIP

Name of MPO (if applicable): NIRCP

Location in TIP (if applicable): FY 2022-2026, pg. 69

Level of MSAT Analysis required?

Level 1a Level 1b Level 2 Level 3 Level 4 Level 5

Describe if the project is listed in the STIP and if it is in a TIP. Describe the attainment status of the county(ies) where the project is located. Indicate whether the project is exempt from a conformity determination. If the project is not exempt, include information about the TP and TIP. Describe if a hot spot analysis is required and the MSAT Level.

This project is included in the Fiscal Year (FY) 2022-2026 NIRCP Metropolitan Planning Organization (MPO) Transportation Improvement Program (TIP) which has been directly incorporated into the FY 2022-2026 State Transportation Improvement Program (STIP) (Appendix G, page 2).

This project is located in Hobart Township in Lake County, which is currently a nonattainment area for 2015 8-Hour Ozone Standard according to the July 5, 2022 IDEM "Current Nonattainment Area" map (https://www.in.gov/idem/sips/files/nonattainment_areas_map.pdf). This project has been identified as being exempt from air quality analysis in accordance with 40 CFR Part 93.126 and this project is not a project of air quality concern (40 CFR Part 93.123). Therefore, the project will have no significant impact on air quality.

This project is of a type qualifying as a categorical exclusion (Group 1) under 23 CFR 771.117(c), or exempt under the Clean Air Act conformity rule under 40 CFR 93.126, and as such, a Mobile Source Air Toxics analysis is not required.

SECTION G - NOISE

Noise	Yes	No
Is a noise analysis required in accordance with FHWA regulations and INDOT's traffic noise policy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Date Noise Analysis was approved/technically sufficient by INDOT ESD: _____

Describe if the project is a Type I or Type III project. If it is a Type I project, describe the studies completed to date and if noise impacts were identified. If noise impacts were identified, describe if abatement is feasible and reasonable and include a statement of likelihood.

This project is a Type III project. In accordance with 23 CFR 772 and the current *Indiana Department of Transportation Traffic Noise Analysis Procedure*, this action does not require a formal noise analysis.

SECTION H – COMMUNITY IMPACTS

Regional, Community & Neighborhood Factors

Will the proposed action comply with the local/regional development patterns for the area?
 Will the proposed action result in substantial impacts to community cohesion?
 Will the proposed action result in substantial impacts to local tax base or property values?
 Will construction activities impact community events (festivals, fairs, etc.)?
 Does the community have an approved transition plan?
 If No, are steps being made to advance the community's transition plan?
 Does the project comply with the transition plan? (explain in the discussion below)

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Discuss how the project complies with the area's local/regional development patterns; whether the project will impact community cohesion; and impact community events. Discuss how the project conforms with the ADA Transition Plan.

In order for a municipality to be eligible to receive federal funds they must have in place, or at least under development, an Americans with Disability Act (ADA) Transition Plan. The Transition Plan inventories the municipality's infrastructure identifying those areas with features (i.e., sidewalks, crosswalks, curb ramps, building access, etc.) that are not in compliance with the ADA and establishes a plan to program funding for improvements intended to bring the facilities into compliance.

The Northwest Indiana (NWI) 2050 Plan authored by the NIRCP (https://nirpc.org/wp-content/uploads/NWI-2050-Plan-FINAL_-5.9.2019.pdf) was reviewed by Hanson on September 29, 2022. This document is a comprehensive plan to create a "connected, renewed, united, and vibrant region by 2050" for the northwest region of Indiana. Their plan includes increasing accessibility to pedestrian and transit infrastructure by providing funds to local governments to develop an ADA transition plan and monitor and update ADA transition plans on a routine basis. The NWI 2050 plan did not identify any future plans for this project area. There is no current approved ADA transition plan for the City of Lake Station. The project is a federal-aid project, meaning all improvements to the infrastructure must conform to the ADA. There is one curb ramp and sidewalk within the project area that will be designed to ADA standards. The project is not anticipated to negatively affect community cohesion, the local tax base, or property values, since transportation within the community and connectivity to community resources will not be permanently affected.

On September 29, 2022, Hanson reviewed www.indianafestivals.org for any special events or festivals in Lake County throughout the year. The following special events or festivals were noted:

- Broad Street Blues & BBQ Festival from June 24 - June 26, 2022
- Cedar Lake Summer Fest from July 1 - July 4 2022
- St. John Festival from July 7 - July 10 2022
- Vintage Tractor and Farm Festival from July 8 - July 10, 2022
- Festival of the Lakes from July 13 - July 17, 2022
- Lake County Fair from August 5 - August 14, 2022
- Rock N Rail Music and Street Festival from September 1 - September 4, 2022
- St. John Oktoberfest from September 23 - September 25, 2022

If these events are held during the construction activities, the commute times to events may be impacted causing a short-term impact. Announcements regarding construction activities will be published on the INDOT social media pages and coordination with the community will occur to minimize disruption to the extent possible. All applicable recommendations are included in the Environmental Commitments section of this Categorical Exclusion (CE) document

US 6 will close for approximately 15 weeks during construction. Delays shall occur during construction but will cease with project completion. Temporary community impacts will occur due to increased travel time and expense; therefore, no long-term negative impacts to the community or its economy are expected.

Public Facilities and Services

Discuss what public facilities and services are present in the project area and impacts (such as MOT) that will occur to them. Include how the impacts have been minimized and what coordination has occurred. Some examples of public facilities and services include health facilities, educational facilities, public and private utilities, emergency services, religious institutions, airports, transportation or public pedestrian and bicycle facilities.

Based on a desktop review, the aerial map of the project area (Appendix B, page 4), and the RFI report (Appendix E, page 3), there are two schools, one airport, and five religious facilities located within the 0.5 mile of the project. There are no public facilities within or adjacent to the project area. One public-use airport, Hobart Sky Ranch, is within 3.8 miles (20,000 ft.) of the project area. That number was confirmed by the site visit on May 17, 2021 by Hanson. This project will have no direct or indirect impacts to the public facilities due to their proximity to the project area. Therefore, no impacts are expected. Access to all properties will be maintained during construction.

INDOT – Aviation responded on April 14, 2021 stating there are no issues with surrounding airspace or public use airports. If any object will exceed 200 ft. in height, the object will need to be airspaced with the Federal Aviation Administration (FAA) 45 days prior to construction (Appendix C, page 26). This is included as a firm commitment in the Environmental Commitment section of this CE document.

The Lake County Highway Department responded on April 22, 2021 with recommendations to notify Lake County or the Lake County Highway Department if Grand Blvd./N. Lake Park Ave. between Central Ave. and 37th Ave. (Ridge Rd.) is used as the local detour route (Appendix C, page 27). All applicable recommendations are included in the Environmental Commitments section of this CE document.

This is page 19 of 23 Project name: US 6 Bridge Project Date: March 2, 2023

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It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access.

Environmental Justice (EJ) (Presidential EO 12898)

During the development of the project were EJ issues identified?

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Does the project require an EJ analysis?

If YES, then:

Are any EJ populations located within the project area?

<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Will the project result in adversely high and disproportionate impacts to EJ populations?

Indicate if EJ issues were identified during project development. If an EJ analysis was not required, discuss why. If an EJ analysis was required, describe how the EJ population was identified. Include if the project has a disproportionately high or adverse effect on EJ populations and explain your reasoning. If yes, describe actions to avoid, minimize and mitigate these effects.

Under FHWA Order 6640.23A, FHWA and the project sponsor, as a recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. Per the current INDOT Categorical Exclusion Manual, an Environmental Justice (EJ) Analysis is required for any project that has two or more relocations or 0.5 acre of additional permanent right-of-way. The project will require 2.197 acres of permanent ROW; therefore, an EJ Analysis is required.

Potential EJ impacts are detected by locating minority and low-income populations relative to a reference population to determine if populations of EJ concern exists and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city or town and is called the community of comparison (COC). In this project, the COC is Hobart Township, Lake County, Indiana. The community that overlaps the project area is called the affected community (AC). In this project, the AC is Census Tract 418. An AC has a population of concern for EJ if the population is more than 50% minority or low-income or if the low-income or minority population is 125% of the COC. Data from the American Community Survey (ACS) 2020 5-Year Estimate was obtained from the U.S. Census Bureau on June 17, 2022 by Hanson. The data collected for minority and low-income populations within the AC are summarized in the below table.

	COC – Hobart Township, Lake County Indiana	AC – Census Tract 418, Lake County Indiana
Percent Minority	29.3%	29.3%
125% of COC	36.7%	AC < 125% COC
EJ Population of Concern		No
Percent Low-Income	15.6%	11.1%
125% of COC	19.5%	AC < 125% COC
EJ Population of Concern		No

Minority and Low-Income Data (ACS, 2020)

The AC, Census Tract 418, has a percent minority of 29.3% which is below 50% and the 125% COC threshold. The AC, Census Tract 418, has a percent low-income of 11.1% which is below 50% and the 125% COC threshold. Therefore, the AC does not contain minority or low-income populations of EJ concern.

The census data sheets, map, and calculations can be found in Appendix I (pages 11 to 14). The EJ Analysis for the area impacted by the project resulted in no adverse impacts to minority or low-income populations. No further environmental justice analysis is warranted.

Relocation of People, Businesses or Farms

Will the proposed action result in the relocation of people, businesses or farms?

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Is a BIS or CSRS required?

Number of relocations: Residences: 0 Businesses: 0 Farms: 0 Other: 0

Indiana Department of Transportation

County Lake Route US 6 Des. No. 1900012

Discuss any relocations that will occur due to the project. If a BIS or CSRS is required, discuss the results in the discussion below.

No relocations of people, businesses, or farms will take place as a result of this project.

SECTION I – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Hazardous Materials & Regulated Substances (Mark all that apply)

Documentation

Red Flag Investigation (RFI)	X
Phase I Environmental Site Assessment (Phase I ESA)	
Phase II Environmental Site Assessment (Phase II ESA)	
Design/Specifications for Remediation required?	

Date RFI concurrence by INDOT SAM (if applicable): April 11, 2022

Include a summary of the potential hazardous material concerns found during review. Discuss in depth sites found within, directly adjacent to, or ones that could impact the project area. Refer to current INDOT SAM guidance. If additional documentation (special provisions, pay quantities, etc.) will be needed, include in discussion. Include applicable commitments.

Based on a review of GIS and available public records, the RFI was completed on April 7, 2022 by Hanson and INDOT Site Assessment and Management (SAM) provided their concurrence on April 11, 2022 (Appendix E, pages 5 to 6). There are two RCRA Generator/TSDs, one State Cleanup Site, nine underground storage tanks (USTs), two solid waste landfills, eight leaking underground storage tanks (LUSTs), five brownfields, four institutional controls, and one NPDES facility located within 0.5 mile of the project area. The nearest LUST site, Luke il, Agency ID# 18473, 2470 Ripley Street, is mapped incorrectly and is located adjacent to the northwest corner of the project area. The latest correspondence within the Virtual File Cabinet (VFC) indicates No Further Action (NFA) approval determination pursuant to the Risk Integrated System of Closure (RISC) Non-rule Policy Document (NPD) guidelines and conditions for LUST incident #200801505 on May 16, 2018. Contamination remains in the area surrounding the site and possibly exists in the ROW. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater will be necessary. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination.

Part IV – Permits and Commitments

PERMITS CHECKLIST

Permits (mark all that apply)

Likely Required

Army Corps of Engineers (404/Section10 Permit)

Nationwide Permit (NWP)	X
Regional General Permit (RGP)	
Individual Permit (IP)	
Other	

IN Department of Environmental Management (401/CSGP)

Nationwide Permit (NWP)	
Regional General Permit (RGP)	
Individual Permit (IP)	X
Isolated Wetlands	
CSGP	X
Other	

IN Department of Natural Resources

Construction in a Floodway	X
Navigable Waterway Permit	
Other	

Mitigation Required

	X
--	---

This is page 21 of 23 Project name: US 6 Bridge Project Date: March 2, 2023

Indiana Department of Transportation

County Lake

Route US 6

Des. No. 1900012

Permits (mark all that apply)

Likely Required

US Coast Guard Section 9 Bridge Permit

Others (Please discuss in the discussion below)

List the permits likely required for the project and summarize why the permits are needed, including permits designated as "Other."

Per coordination with INDOT EWPO on September 14, 2022, due to impacts to likely WOTUS, a USACE Section 404 NWP, an IDEM Section 401 WQC, an IDEM Construction Stormwater General Permit (CQGP), and an IDNR CIF permit are required. Mitigation will be required since cumulative impacts to WOTUS are greater than 0.1 acre. This project is within the Lake Michigan Coastal Program's boundary but is exempt from Federal Consistency review due to the USACE Section 404 NWP.

Applicable recommendations provided by resource agencies are included in the Environmental Commitments section of this document. If permits are found to be necessary, the conditions of the permit will be requirements of the project and will supersede these recommendations.

It is the responsibility of the project sponsor to identify and obtain all required permits.

ENVIRONMENTAL COMMITMENTS

List all commitments and include the name of agency/organization requesting/requiring the commitment(s). Listed commitments should be numbered.

Firm:

- 1) If the scope of work or permanent or temporary right-of-way amounts change, the INDOT ESD and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and INDOT District)
- 2) It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access. (INDOT ESD)
- 3) For brand new crossings in areas that currently do not have a crossing, the new structure must accommodate white-tailed deer passage where appropriate. For crossing replacements, the new structure must include wildlife passage appropriate for the type of replacement structure being proposed. If white-tailed deer passage is not possible with the existing structure, deer passage still needs to be considered in the design and at minimum the bank lines must be restored within structures to allow for smaller wildlife passage above the ordinary high water mark. All wildlife passage designs must include a smooth level pathway a minimum of 1-2 feet in width composed of natural substrate (soil, sand, gravel, etc.) or compacted aggregate fill over riprap (#2, #53, #73, etc.) tied into existing elevations both upstream and downstream. The stream crossing repairs or modifications, and any bank stabilization under or around the structure, must not create conditions that are less favorable for wildlife passage when compared to existing conditions. (IDNR-DFW)
- 4) Riprap must not be placed in the active thalweg channel or placed in the streambed in a manner that precludes fish or aquatic organism passage (riprap must not be placed above the existing streambed elevation). Riprap may be used only at the toe of the side slopes up to the ordinary high water mark (OHWM). The banks above the OHWM must be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to Northern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. (IDNR-DFW)
- 5) Install an entrenched silt fence along the border of the work area on the east side of bridge and along the east side north of the bridge, where feasible to prevent Blanding's turtles from entering the area (IDNR-DFW)
- 6) Lighting AMM 1: Direct temporary lighting away from suitable habitat during the active season (USFWS)
- 7) Tree Removal AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal. (USFWS)
- 8) Tree Removal AMM 2: Apply time of year restrictions for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 ft. of existing road/rail surface and outside of documented roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed. (USFWS and IDNR-DFW)
- 9) Tree Removal AMM 3: Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g. install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits). (USFWS)
- 10) Tree Removal AMM 4: Do not remove documented Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 miles of roosts, or documented foraging habitat any time of year. (USFWS)
- 11) General AMM 1: Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are

This is page 22 of 23 Project name: US 6 Bridge Project Date: March 2, 2023

Indiana Department of Transportation

County Lake Route US 6 Des. No. 1900012

aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs. (USFWS)

- 12) Prior to the start of nesting season (May 1) the structure must be inspected for birds or signs of birds. If birds or signs of birds are found during the inspection avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. (INDOT ESD)
- 13) If construction will begin after May 17, 2023, an inspection of the structure by a qualified individual, must be performed. Inspection of the structure should check for presence of bats/bat indicators and/or presence of birds. The results of the inspection must indicate no signs of bats or birds. If signs of bats or birds are documented during this inspection, the INDOT District Environmental Manager must be contacted immediately. (INDOT ESD)
- 14) If excavation of ROW occurs in the northwest corner of the project area, proper handling, removal, and disposal of soil and/or groundwater will be necessary. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination. (INDOT SAM)
- 15) Any work in a wetland area within ROW or in borrow/waste area is prohibited unless specifically allowed in the USACE permit. (INDOT ESD)
- 16) If any object will exceed 200 ft. in height, the object will need to be airspaced with the FAA 45 days prior to construction. (INDOT – Aviation)
- 17) Notify Lake County or the Lake County Highway Department if Grand Blvd./N. Lake Park Ave. between Central Ave. and 37th Ave. (Ridge Rd.) is used as the local detour route. (Lake County Highway Department)
- 18) Open Water 1 will be marked on the plans as “Do Not Disturb”. (INDOT ESD)
- 19) Wetlands D and E will be marked on the plans as “Do Not Disturb”. (INDOT ESD)
- 20) If any special events or festivals are held during construction activities announcements regarding construction activities will be published on the INDOT social media pages and coordination with the community will occur to minimize disruption to the extent possible. (INDOT ESD)

For Further Consideration:

- 21) Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure. (IDNR-DFW)
- 22) Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds. (IDNR-DWF)
- 23) Operate equipment used to replace the bridge from the existing roadway. (IDNR-DFW)
- 24) Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR-DFW)

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APPENDIX A

INDOT Supporting Documentation

Categorical Exclusion Level Thresholds

	PCE	Level 1	Level 2	Level 3	Level 4 ¹
Section 106	Falls within guidelines of Minor Projects PA	“No Historic Properties Affected”	“No Adverse Effect”	-	“Adverse Effect” Or Historic Bridge involvement ²
Stream Impacts³	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	USACE Individual 404 Permit ⁴
Wetland Impacts³	No adverse impacts to wetlands	< 0.1 acre	-	< 1.0 acre	≥ 1.0 acre
Right-of-way⁵	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
Relocations⁶	None	-	-	< 5	≥ 5
Threatened/Endangered Species (Species Specific Programmatic for Indiana bat & northern long eared bat)*	“No Effect”, “Not likely to Adversely Affect” (With select AMMs ⁷)	“Not likely to Adversely Affect” (With any AMMs or commitments)	-	“Likely to Adversely Affect”	Project does not fall under Species Specific Programmatic ⁸
Threatened/Endangered Species (Any other species)*	Falls within guidelines of USFWS 2013 Interim Policy or “No Effect”	“Not likely to Adversely Affect”	-	-	“Likely to Adversely Affect”
Environmental Justice	No disproportionately high and adverse impacts	-	-	-	Potential ⁹
Sole Source Aquifer	No Detailed Groundwater Assessment	-	-	-	Detailed Groundwater Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Section 4(f) Impacts	None	-	-	-	Any ¹⁰
Section 6(f) Impacts	None	-	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes ¹¹
Approval Level					
<ul style="list-style-type: none"> • District Env. (DE) • Env. Serv. Div. (ESD) • FHWA 	Concurrence by DE or ESD	DE or ESD	DE or ESD	DE and/or ESD	DE and/or ESD; and FHWA

¹ Coordinate with INDOT Environmental Services Division. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.

² Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.

³ Total permanent impacts to streams (linear feet) and wetlands (acres).

⁴ US Army Corps of Engineers Individual 404 Permit

⁵ Total permanent and temporary right-of-way. This does not include reacquisition of existing apparent right-of-way.

⁶ If any relocations are within an area with a known or suspected Environmental Justice (EJ) or disadvantaged population, or has greater than 5 relocations, a conversation with FHWA, through INDOT ESD, is needed to confirm NEPA classification and outreach plan for the project.

⁷ Avoidance and Mitigation Measures (AMMs) determined by the IPAC determination key to be required that are not tree AMMs, bridge AMMs, or structure AMMs.

⁸ Projects that do not fall under a Species Specific Programmatic and results in a “Likely to Adversely Affect”. Other findings can be processed as a lower-level CE.

⁹ Potential for causing a disproportionately high and adverse impact.

¹⁰ Section 4(f) use resulting in an Individual, Programmatic, or *de minimis* evaluation. The only exception is a *de minimis* evaluation for historic properties (Effective January 2, 2020). If a historic property *de minimis* and no other use, mark the *None* column.

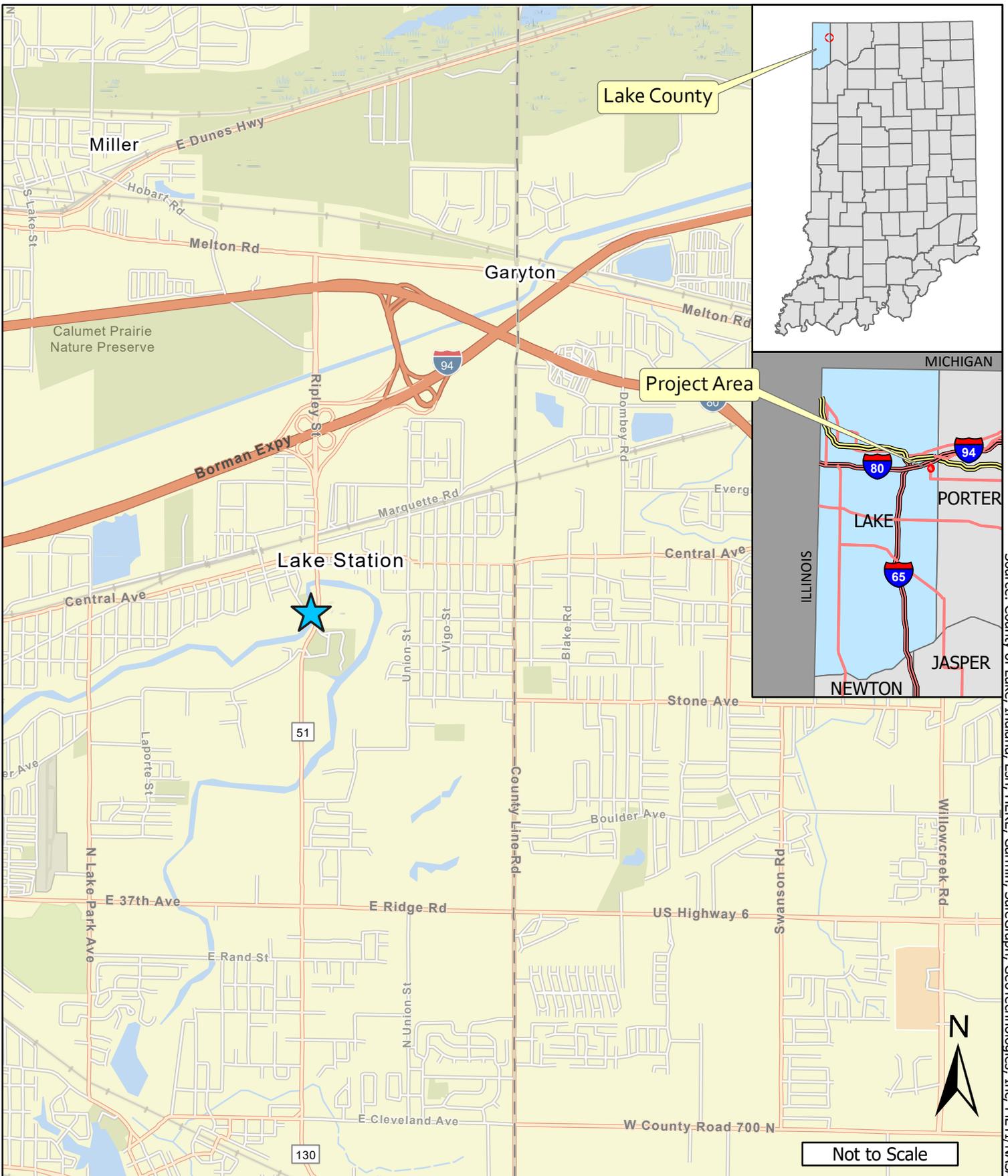
¹¹ Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.

* Includes the threatened/endangered species critical habitat

Note: Substantial public or agency controversy may require a higher-level NEPA document.

APPENDIX B

Graphics



Source: County of Lake, Indiana, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA

Figure 1 Project Location

Categorical Exclusion
 US 6 Bridge Replacement at Muck Pocket
 Lake County, Indiana

Des. No. 1900012

Created: 8/2/2022

**Indiana Department
 of Transportation**
 100 North Senate Avenue
 Indianapolis, IN 46204



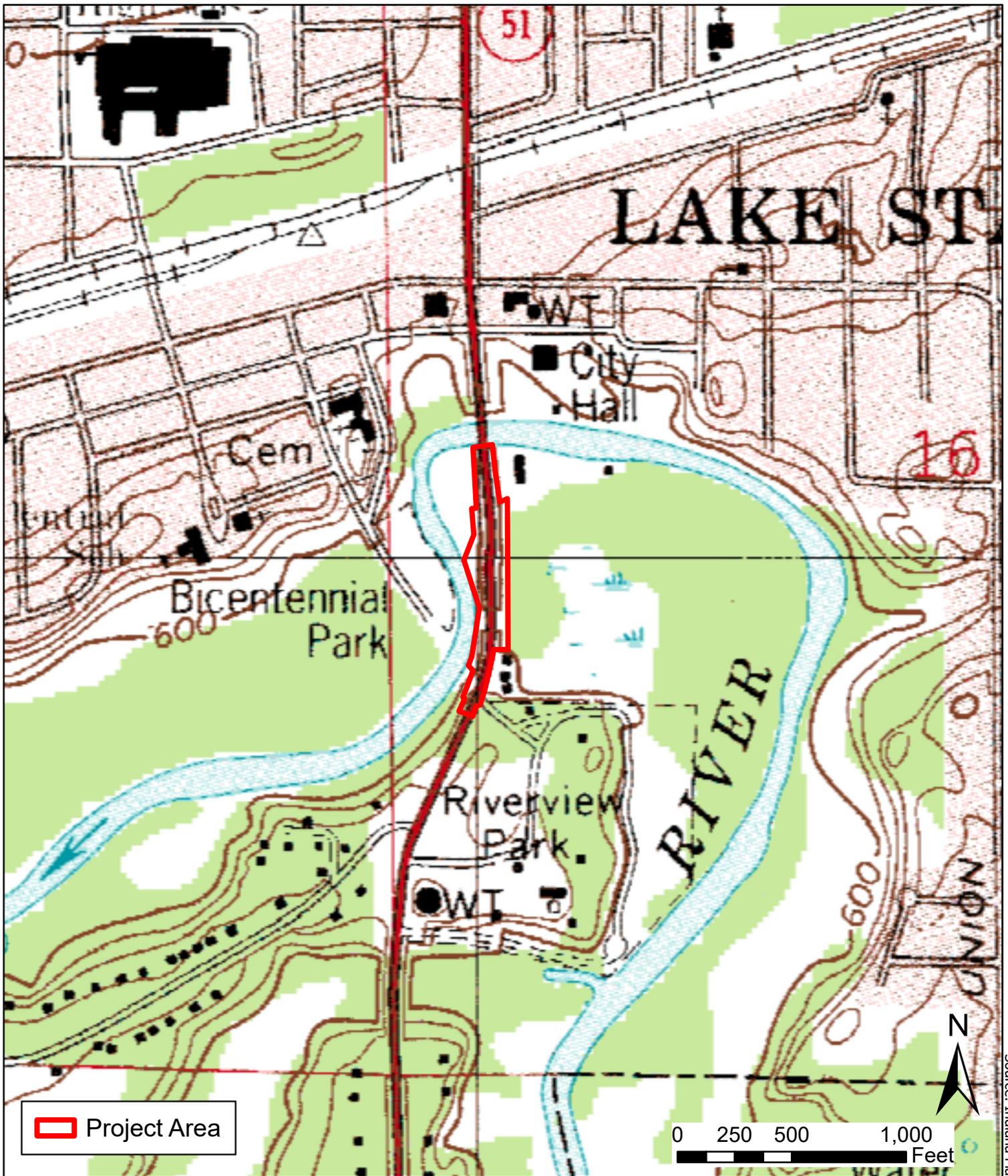


Figure 2 USGS Topographic Map

Categorical Exclusion
 US 6 Bridge Replacement at Muck Pocket
 Lake County, Indiana

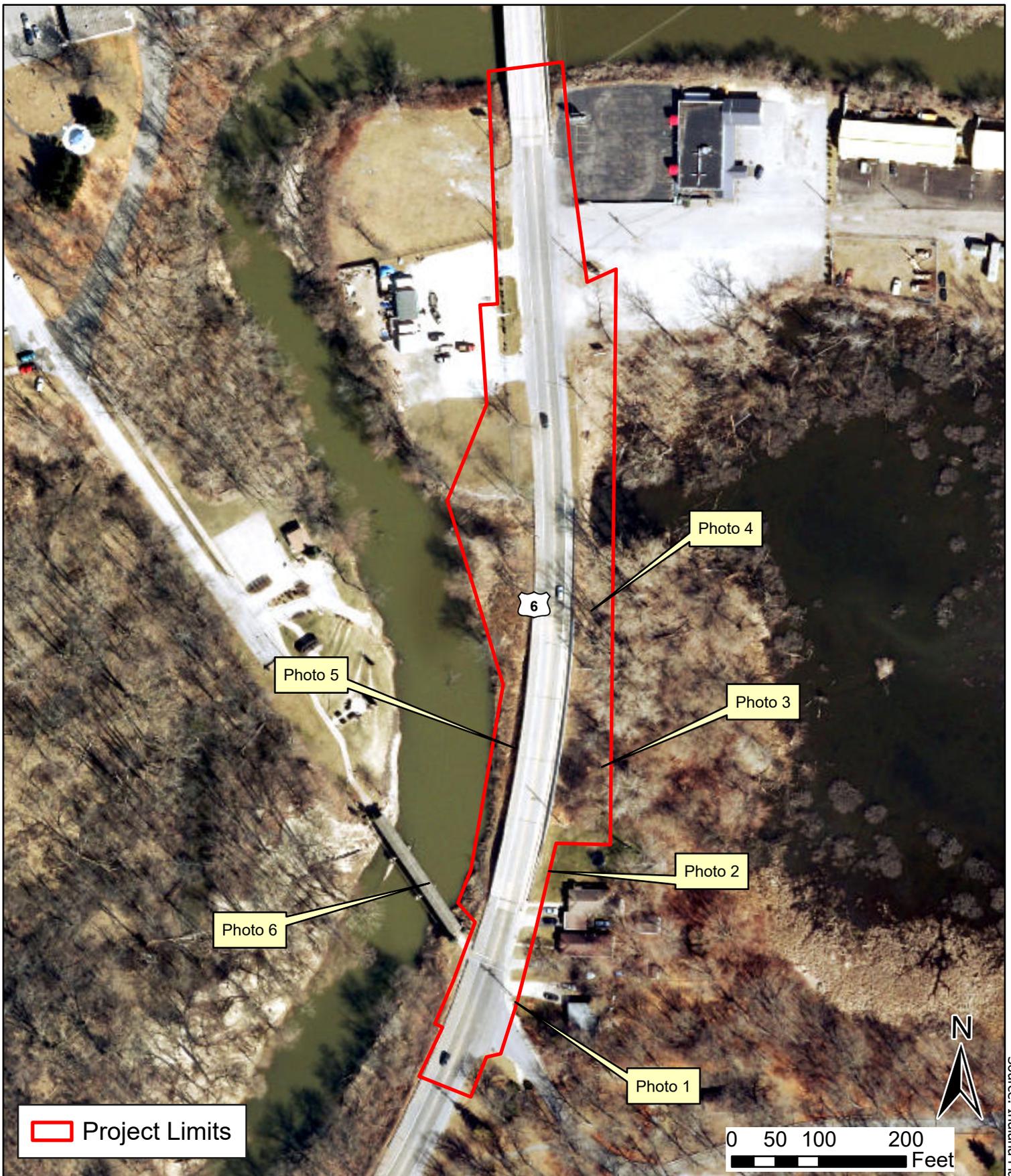
Des. No. 1900012

Created: 8/2/2022

**Indiana Department
 of Transportation**
 100 North Senate Avenue
 Indianapolis, IN 46204



Source: Indiana Map (www.indianamap.org)



 Project Limits

0 50 100 200
Feet

Source: Indiana Map (www.indianamap.org)

Figure 3 Aerial Imagery and Photo Location
Categorical Exclusion
 US 6 Bridge Replacement at Muck Pocket
 Lake County, Indiana
 Des. No. 1900012 Created: 8/2/2022

 **HANSON**
 Hanson Professional Services Inc.

Indiana Department of Transportation
 100 North Senate Avenue
 Indianapolis, IN 46204



Photo 1. US 6/SR 51 at Riverview Park entrance, viewing north, 9/30/2020



Photo 2. US 6/SR 51 southeast corner, viewing northwest, 9/30/2020



Photo 3. US 6/SR 51 Bridge east side by Muck Pocket, viewing north, 9/30/2020



Photo 4. US 6/SR 51 Bridge northeast corner, viewing south, 9/30/2020

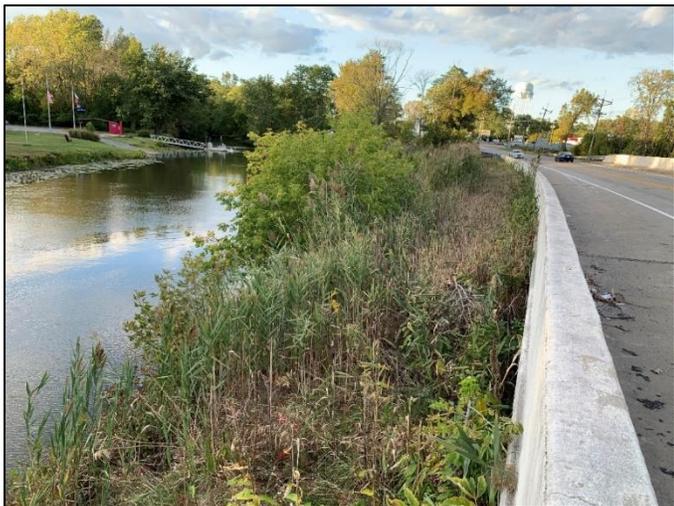


Photo 5. US 6/SR 51 Bridge west side along Deep River, viewing north, 9/30/2020



Photo 6. US 6/SR 51 Bridge west side from covered walking bridge with Deep River, viewing northeast, 9/30/2020

PROJECT	DESIGNATION
1900012	1900012
CONTRACT	BRIDGE FILE
B-42442	(6)51-45-10466-B

STRUCTURE INFORMATION				
STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
(6)51-45-10466-B	REINFORCED CONCRETE SLAB BRIDGE	UNIT 1 3 SPANS: 20'-0", 25'-0" & 20'-0" SKEW: 0° UNIT 2 THRU 7 3 SPANS: 23'-9", 31'-0" & 23'-9" SKEW: 0°	MUCK POCKET	74+52.50 LINE "C2"

INDIANA DEPARTMENT OF TRANSPORTATION



BRIDGE PLANS

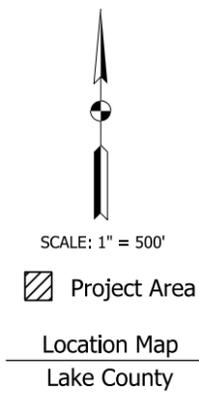
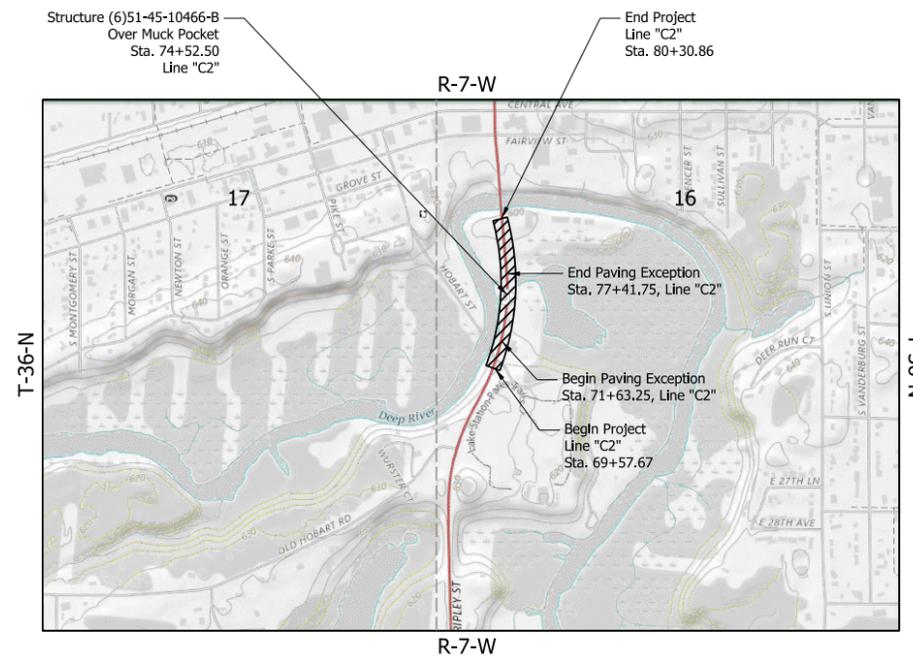
FOR SPANS OVER 20 FEET

ROUTE: US 6 / SR 51 OVER MUCK POCKET AT: RP 16 - 13

PROJECT NO. 1900012 P.E.
1900012 R/W
1900012 CONST.

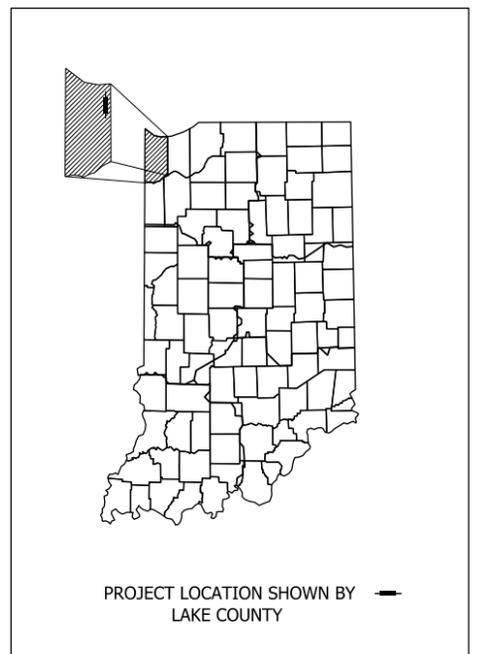
Project Description: Bridge replacement on US 6/ SR 51 over Muck Pocket
Located 0.84 miles South of SR 51/I-80/94
Section 16, T-36-N, R-7-W, Hobart Township, Lake County, Indiana

Stage 2 Plans
August 26, 2022



TRAFFIC DATA		
A.A.D.T.	(2021)	16,398 V.P.D.
A.A.D.T.	(2044)	17,303 V.P.D.
D.H.V	(2044)	1,601 V.P.H.
DIRECTIONAL DISTRIBUTION		50 %
TRUCKS		4 % A.A.D.T. 8 % D.H.V.

DESIGN DATA	
DESIGN SPEED	35 M.P.H.
PROJECT DESIGN CRITERIA	4R (Non-Freeway)
FUNCTIONAL CLASSIFICATION	PRINCIPAL ARTERIAL - OTHER
RURAL/URBAN	URBAN
TERRAIN	LEVEL
ACCESS CONTROL	NONE



LATITUDE: 41°34'14"	LONGITUDE: -87°14'23"
BRIDGE LENGTH: 0.102 MI.	
ROADWAY LENGTH: 0.101 MI.	
TOTAL LENGTH: 0.203 MI.	
MAX. GRADE: 2.75 %	

HUC 12: 040400010508

Soil Boring Logs
redacted

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2022
TO BE USED WITH THESE PLANS.

HDR
HDR ENGINEERING, INC.
10401 NORTH MERIDIAN STREET
INDIANAPOLIS, IN 46290-0900
PHONE: (317) 558-4920

NOT FOR
CONSTRUCTION

PLANS PREPARED BY: HDR ENGINEERING INC. (317) 558-4920
PHONE NUMBER
CERTIFIED BY: [Signature] \$SIG DATE\$
DATE
APPROVED FOR LETTING: INDIANA DEPARTMENT OF TRANSPORTATION DATE

BRIDGE FILE	
(6)51-45-10466-B	
DESIGNATION	
1900012	
SURVEY BOOK	SHEETS
Electronic	1 of 52
CONTRACT	PROJECT
B-42442	1900012

UTILITIES

UTILITY	ADDRESS	CITY/STATE/ZIP	CONTACT NAME	PHONE	EMAIL
City of Lake Station (Sanitary Sewer)	1969 Central Avenue	Lake Station, IN 46405	Frank Krebs	219-406-1402	fkrebs@lakestation-in.gov
Frontier Communications (Telephone)	2401 Chicago St.	Valparaiso, IN 46383	Charles Mckean	219-531-6947	Chuck.McKean@ftr.com
Indiana DOT (Traffic Signals)	315 E. Boyd Blvd.	LaPorte, IN 46350	Adam Banks	219-352-7581	ABanks1@indot.IN.gov
Indiana American Water	153 N Emerson Avenue	Greenwood, IN 46143	Ellen Hohl	317-504-9419	inutilitycoordination@amwater.com
NIPSCO Electric	801 E 86th Ave.	Merrillville, IN 46410	Dean Garrett	219-647-6260	DAGarrett@NISource.com
NIPSCO Gas	801 E 86th Ave.	Merrillville, IN 46410	Dean Garrett	219-647-6260	DAGarrett@NISource.com
Town of New Chicago	122 Huber Blvd.	Hobart, IN 46342	Alicia Barber	219-484-3460	watermanager@frontier.com

GENERAL NOTES

All earth shoulders and cut and fill slopes shall be plain or mulch seeded except where sodding is specified.

All removal items not paid for directly will be included in the lump sum cost of "Clearing Right of Way."

It is the Contractor's responsibility to contact any and all utility companies within the limits of the project three weeks prior to any construction.

When re-shaping cross section, all existing slopes steeper than 4:1 shall be benched before establishing the proposed flattened slope.

All borrow used on this job shall be obtained within the right of way limits, unless approved by the Project Engineer.

The Contractor shall ensure that safe access is maintained to all residences and businesses during all phases of construction.

All concrete curbing including modified or special curbs as shown on the plans shall be in accordance with Section 605.

Existing curb types may vary at streets. The Contractor shall inspect curb prior to beginning work to assure proper fit and transition.

The Contractor shall ensure that positive drainage is maintained along curb and gutter flowlines and at intersections after the completion of curb ramp construction.

Sidewalks and curb ramps have been designed to a cross slope of 1.5% or as specified otherwise herein. If field conditions differ, the Contractor shall ensure sidewalk and curb ramp cross slope is no greater than 2.00% in final constructed condition.

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4	PLAT NO. 1
5	MAINTENANCE OF TRAFFIC DETOUR ROUTE
6	ALIGNMENT GEOMETRIC DETAILS
7 - 8	PLAN AND PROFILE SHEETS
9	SUPERELEVATION DETAILS
10 - 12	CONSTRUCTION DETAILS
13	ADA RAMP DETAILS
14 - 16	TEMPORARY EROSION AND SEDIMENT CONTROL PLAN
17	PAVEMENT MARKINGS AND SIGNINGS
18 - 34	SOIL BORINGS
35	LAYOUT
36 - 38	GENERAL PLAN
39	BRIDGE SUMMARY
40	APPROACH TABLE
41 - 52	CROSS SECTIONS

REVISIONS

SHEET NO.	DATE	REVISED



INDIANA UNDERGROUND
1-800-382-5544 OR CALL 811
24 HOURS A DAY 7 DAYS A WEEK

Pkt: 8/26/2022 7:04:01 PM

File: pw:\pvhdrusen01\HDR_US_Centra_01\Documents\248547\10290901\6.0_CAD_BIM\6.2_WIP\6.2.03_CADD Sheets\Roadway\Sh Index.dgn
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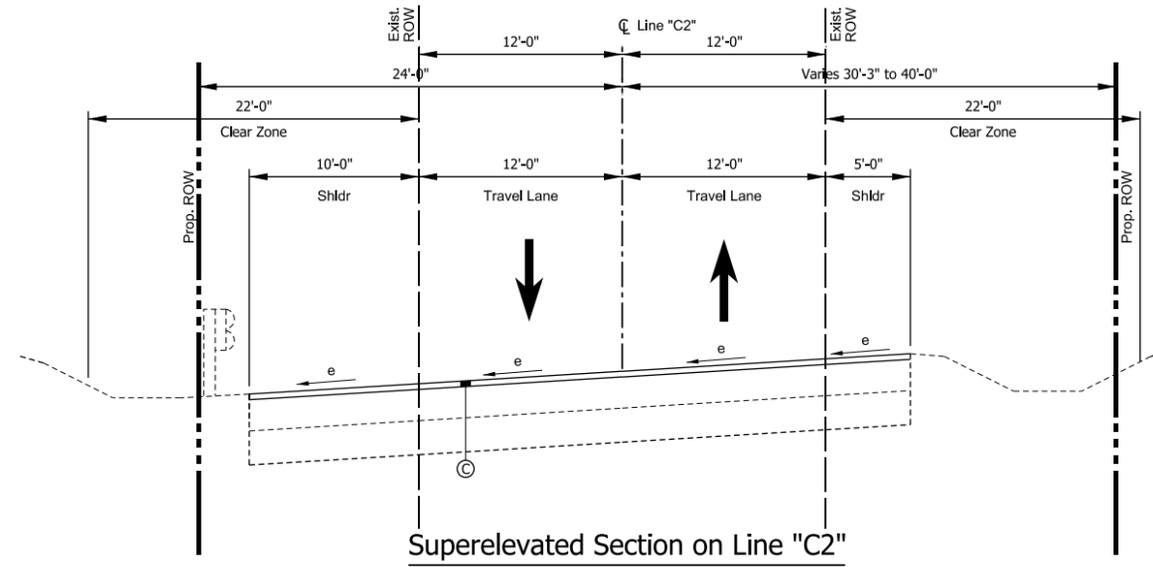
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: <u>EN</u> 08/26/2022	DRAWN: <u>CMD</u> 08/26/2022	
CHECKED: <u>JLP</u> 08/26/2022	CHECKED: <u>JLP</u> 08/26/2022	

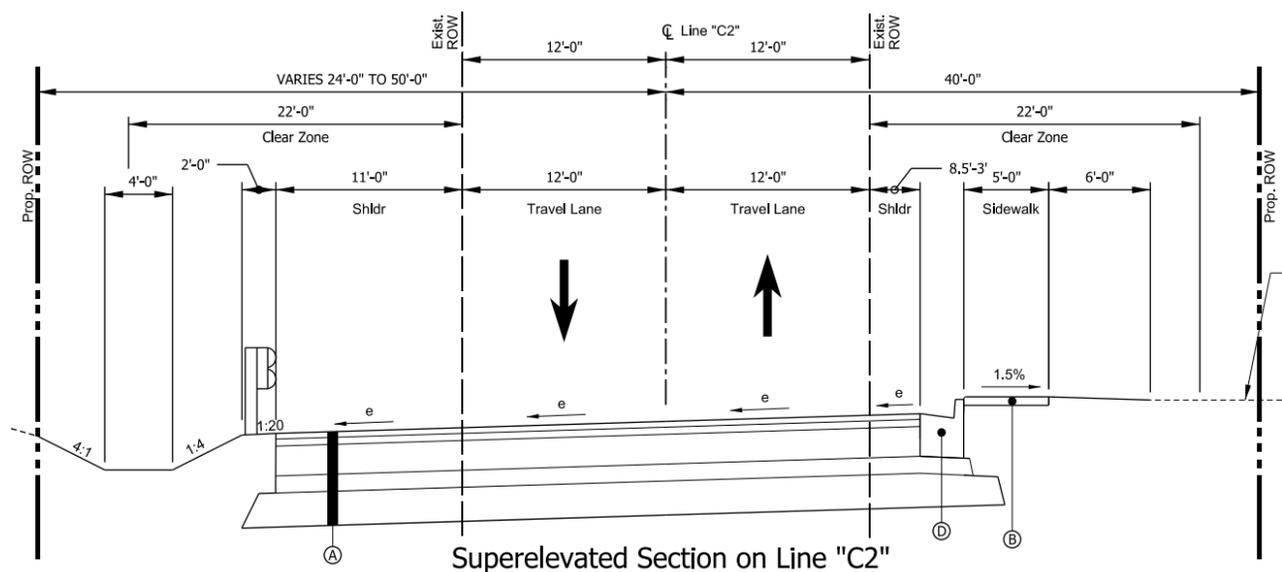
INDIANA
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES & INDEX

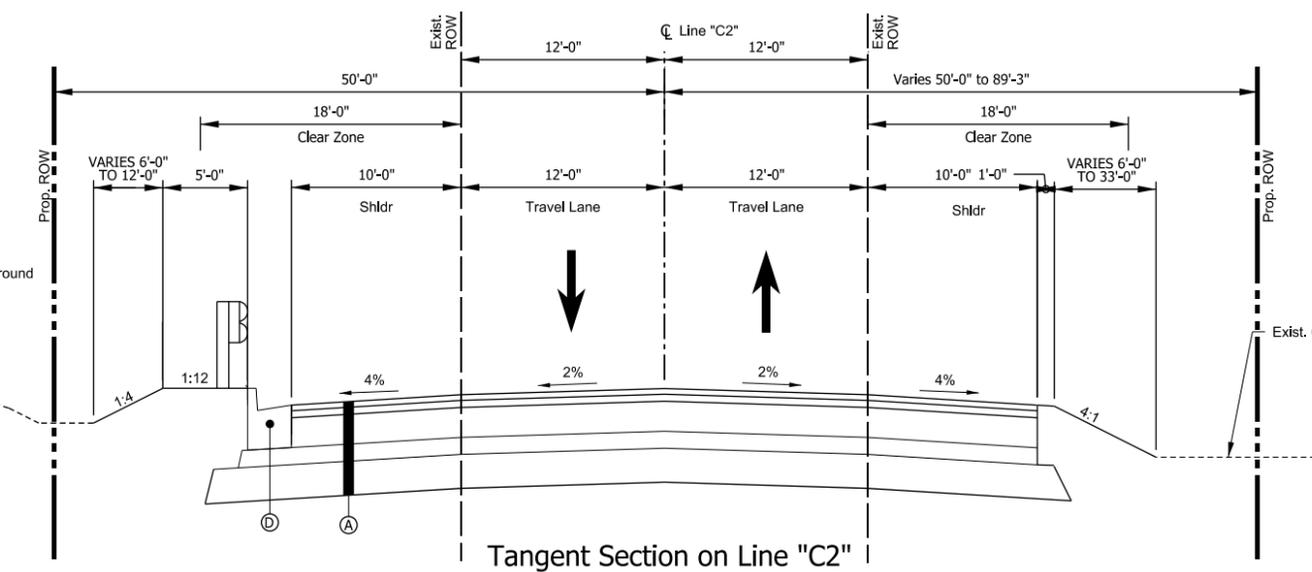
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N/A	(6)51-45-10466-B
VERTICAL SCALE	DESIGNATION
N/A	1900012
SHEETS	
2	of 52
CONTRACT	PROJECT
B-42442	1900012



Superelevated Section on Line "C2"
Sta 69+57.67 to Sta 71+00.00



Superelevated Section on Line "C2"
Sta 71+00.00 to Sta 71+63.25
Sta 77+41.75 to Sta 78+36.75



Tangent Section on Line "C2"
Sta 78+36.75 to Sta 80+30.86

Paving Exception: Sta 71+63.25 to Sta 77+41.75
(Superelevated)

PROPOSED LEGEND

- (A) FULL DEPTH HMA:
220 lbs/sy QC/QA-HMA, 3, 76, SURFACE, 12.5 mm
275 lbs/sy QC/QA-HMA, 3, 70, INTERMEDIATE, 19.0 mm
1,155 lbs/sy QC/QA-HMA, 3, 64, BASE, 25.0 mm
6 in COURSE AGGREGATE NO. 53
SUBGRADE TREATMENT, TYPE IC
- (B) CONCRETE, SIDEWALK
- (C) MILLING, ASPHALT, 2 IN. then
220 lbs/sy QC/QA-HMA, 3, 76, SURFACE, 12.5 mm
- (D) CURB AND GUTTER, CONCRETE

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Model: Default

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: CMD	08/26/2022	DRAWN: CMD
CHECKED: EN	08/26/2022	CHECKED: EN

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
Line "C2"

HORIZONTAL SCALE	BRIDGE FILE
N/A	(6)51-45-10466-B
VERTICAL SCALE	DESIGNATION
N/A	1900012
SHEETS	
3 of 52	
CONTRACT	PROJECT
B-42442	1900012

SEC. 17, T-36-N, R-7-W
HOBART TOWNSHIP
LAKE COUNTY

SEC. 16, T-36-N, R-7-W
HOBART TOWNSHIP
LAKE COUNTY

APP. SECTION LINE

APP. SECTION LINE



69+99

POB = 66+99.14
"C2"
N = 434780.73
E = 831053.40

P.C. = 67+87.44
"C2"
N = 434858.60
E = 831095.02

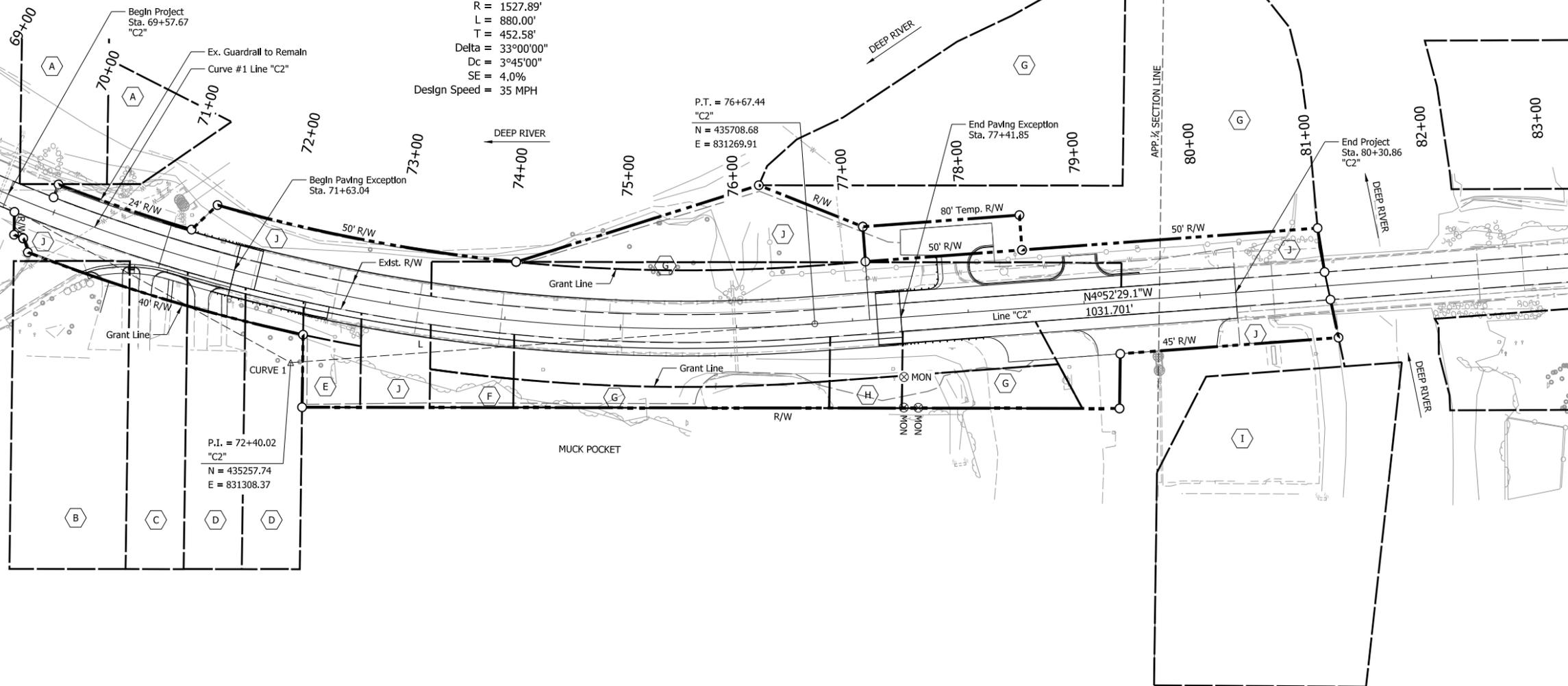
CURVE #1
R = 1527.89'
L = 880.00'
T = 452.58'
Delta = 33°00'00"
Dc = 3°45'00"
SE = 4.0%
Design Speed = 35 MPH

P.T. = 76+67.44
"C2"
N = 435708.68
E = 831269.91

End Paving Exception
Sta. 77+41.85

End Project
Sta. 80+30.86
"C2"

Index No.	Owner
A	ADELE & ANDREW J. KOPKO
B	FELIX VERA
C	BOBBY & JULIA WILLIAMS
D	KENNETH R. DAVIS, JR.
E	GEORGE T. TEDESCHI
F	QUENTON CURTIS & TRACEY Y. BEY
G	FRANKLIN D. & KATHLEEN ROGERS
H	DANIEL JOHN ROSZKOWSKI
I	DEJA VU OF HAMMOND, INCORPORATED
J	CITY OF LAKE STATION



Note: All R/W described from Line "C2", except as shown.

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NOT FOR CONSTRUCTION

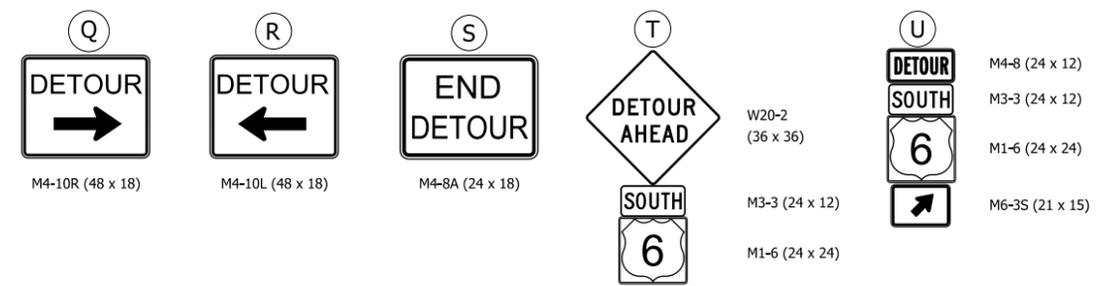
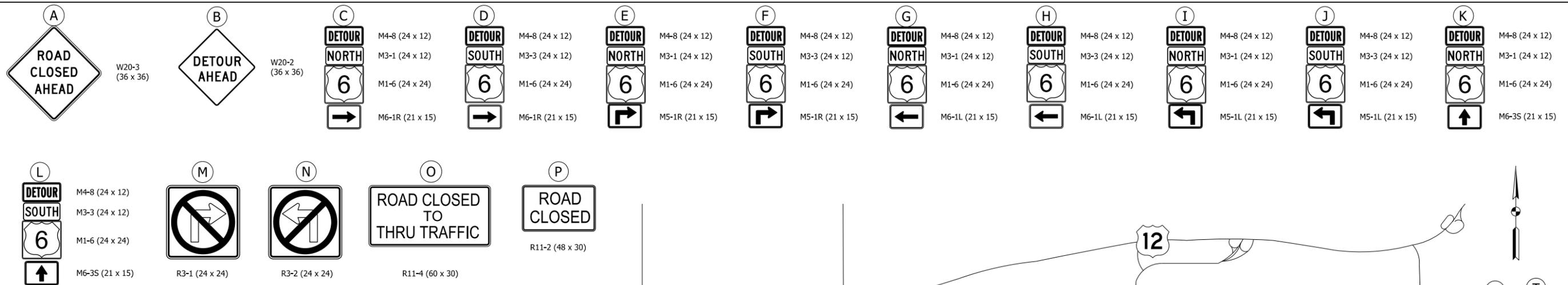
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DESIGNED: CMD	08/26/2022	DRAWN: CMD
CHECKED: EN	08/26/2022	CHECKED: EN

INDIANA DEPARTMENT OF TRANSPORTATION

Plat No. 1

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	(6)51-45-10466-B
VERTICAL SCALE	DESIGNATION
N/A	1900012
SHEETS	
4 of 52	
CONTRACT	PROJECT
B-42442	1900012

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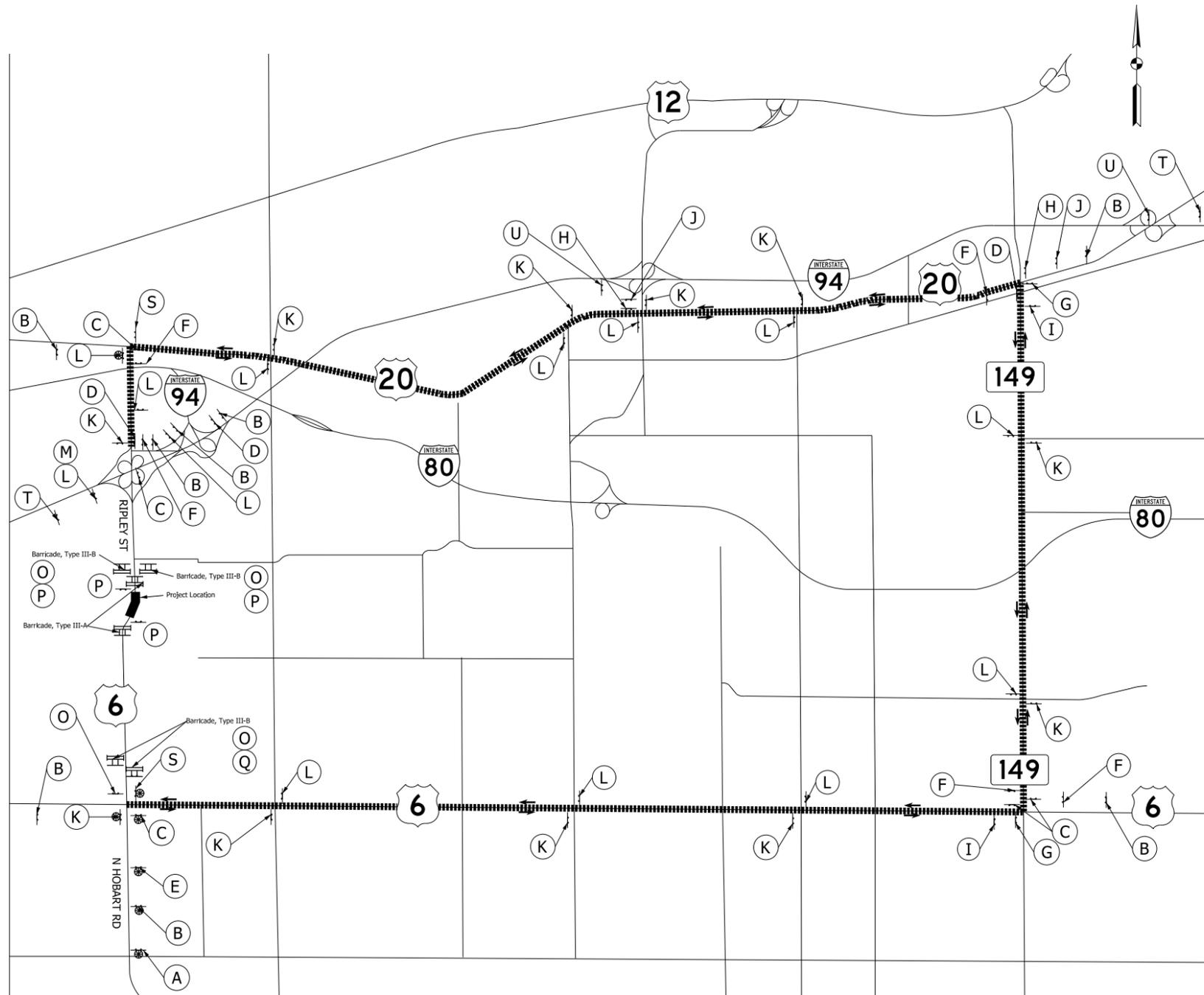
CONSTRUCTION SIGN SCHEDULE

SIGN CODE	SIZE (IN.)	EST. QTY.
W20-3	36 x 36	1
W20-2	36 x 36	8
M4-8	24 x 12	45
M3-1	24 x 12	20
M1-6	24 x 12	47
M6-1R	21 x 15	6
M3-3	24 x 12	6
M5-1R	21 x 15	6
M6-1L	21 x 15	4
M5-1L	21 x 15	4
M6-3S	21 x 15	23
R3-1	24 x 24	1
R3-2	24 x 24	0
R11-4	60 x 30	4
R11-2	48 x 30	4
M4-10R	48 x 18	1
M4-10L	48 x 18	0
M4-8A	28 x 18	1
M6-3S2	21 x 15	2

DETOUR ROUTE MARKER ASSEMBLY

SIGN	EST. QTY.
B	8
C	4
D	3
E	1
F	5
G	2
H	2
I	2
J	2
K	11
L	13
M	1
S	2
T	2
U	2
TOTAL	61

Type III-A Barricades: 90 Lft.
 Type III-B Barricades: 122 Lft.
 Detour Route Marker Assembly: 61 Req'd
 Road Closure Sign Assembly: 9 Req'd



Note: Refer to standard E-801-TCDD for sign spacing

Legend:

- Detour Route Direction
- ⊥ Construction Sign
- ⊙ Low Intensity Construction Warning Light

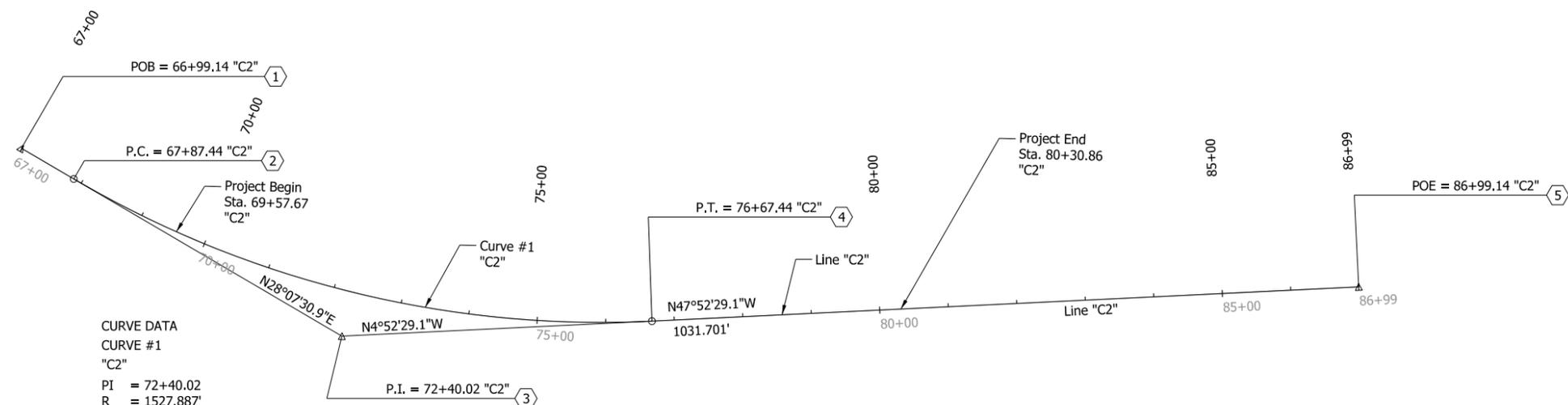
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: CMD	08/26/2022	DRAWN: CMD
CHECKED: EN	08/26/2022	CHECKED: EN

INDIANA DEPARTMENT OF TRANSPORTATION
 MAINTENANCE OF TRAFFIC DETOUR ROUTE

HORIZONTAL SCALE	BRIDGE FILE
N/A	(6)51-45-10466-B
VERTICAL SCALE	DESIGNATION
N/A	1900012
SHEETS	
5	of 52
CONTRACT	PROJECT
B-42442	1900012

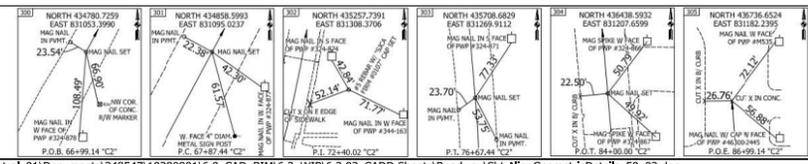
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CURVE DATA
 CURVE #1
 "C2"
 PI = 72+40.02
 R = 1527.887'
 L = 880.000'
 T = 452.581'
 Δ = 33°00'00.0"
 Dc = 3°45'00.0"
 SE = 4%
 DS = 35 MPH

ALIGNMENT DATA (Line "C2")			
Number	Northing	Easting	Stationing
1	434,780.7259	831,053.3990	P.O.B. 66+99.14
2	434,858.5993	831,095.0237	P.C. 67+87.44
3	435,257.7391	831,308.3706	P.I. 72+40.02
4	435,708.6829	831,269.9112	P.T. 76+67.44
5	436,736.6524	831,182.2395	P.O.E. 86+99.14

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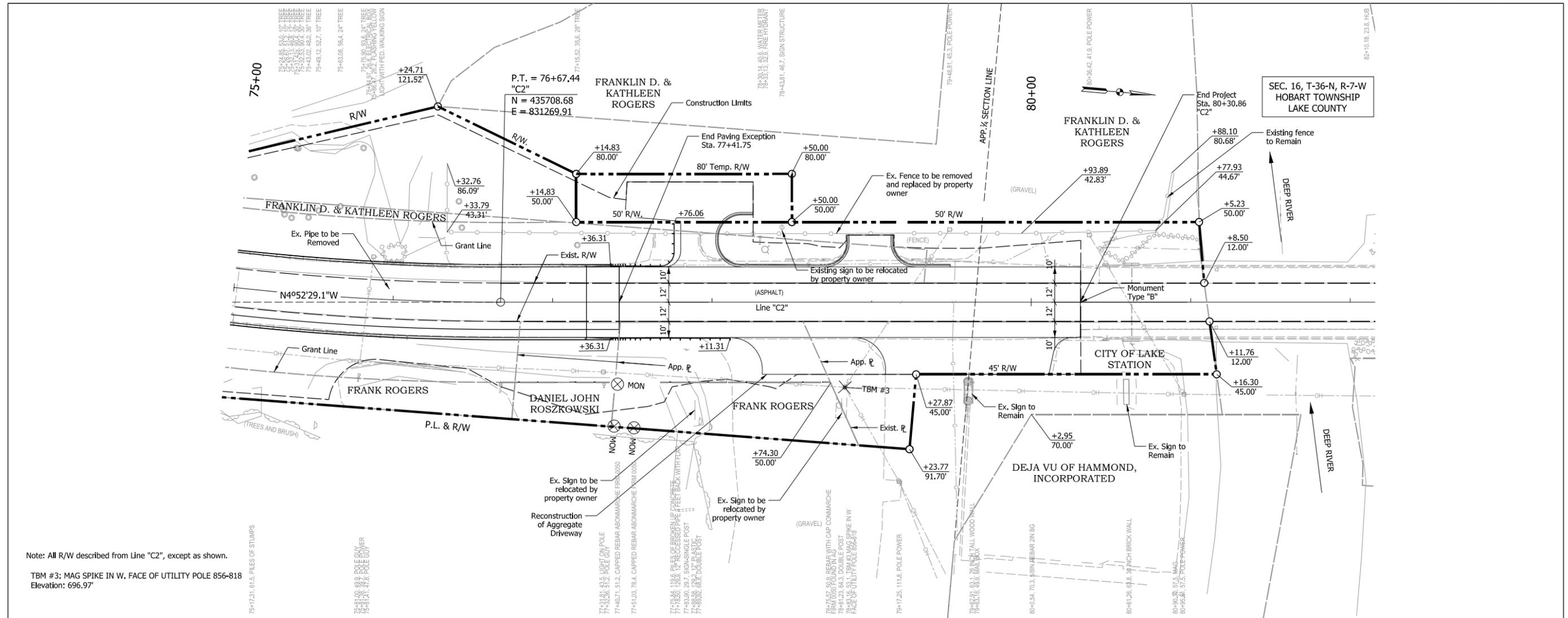
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: CMD	08/26/2022	DRAWN: CMD 08/26/2022
CHECKED: EN	08/26/2022	CHECKED: EN 08/26/2022

INDIANA
DEPARTMENT OF TRANSPORTATION

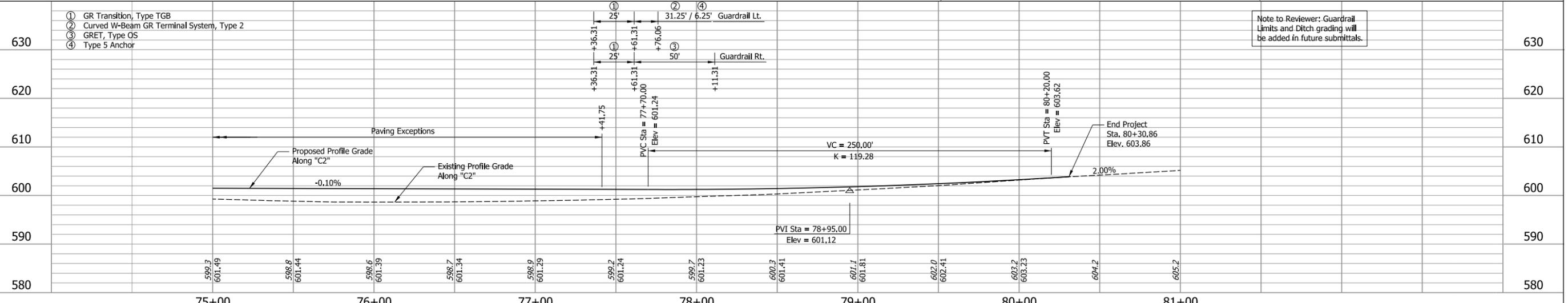
**ALIGNMENT GEOMETRIC DETAILS
LINE "C2"**

HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	(6)51-45-10466-B
VERTICAL SCALE	DESIGNATION
N/A	1900012
SHEETS	
6 of 52	
CONTRACT	PROJECT
B-42442	1900012



Note: All R/W described from Line "C2", except as shown.

TBM #3; MAG SPIKE IN W. FACE OF UTILITY POLE 856-818
Elevation: 696.97'

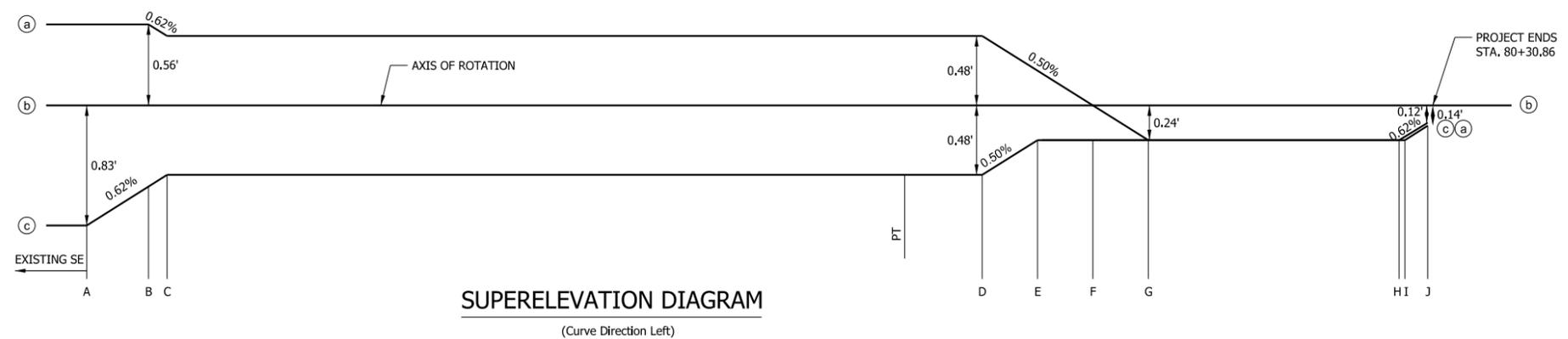


Note to Reviewer: Guardrail Limits and Ditch grading will be added in future submittals.

NOT FOR CONSTRUCTION	RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 30'	BRIDGE FILE (6)51-45-10466-B
	DESIGNED: CMD 08/26/2022	DRAWN: CMD 08/26/2022			VERTICAL SCALE 1" = 10'	DESIGNATION 1900012
	CHECKED: EN 08/26/2022	CHECKED: EN 08/26/2022			SHEETS 8 of 52	
					CONTRACT B-42442	PROJECT 1900012

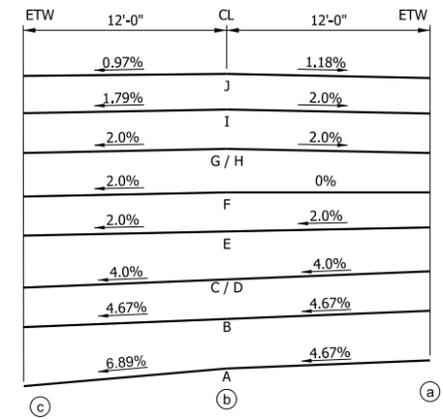
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Model: Default



SUPERELEVATION DIAGRAM
(Curve Direction Left)

SUPERELEVATION Line "C2"	
Curve	1
Curve Radius	1527.89
Super (e)	4%
PC	67+87.44
PI	72+40.02
PT	76+67.44
A	70+99.14
B	71+42.03
C	71+54.97
D	77+21.25
E	77+59.75
F	77+98.25
G	78+36.75
H	80+11.00
I	80+15.04
J	80+30.86



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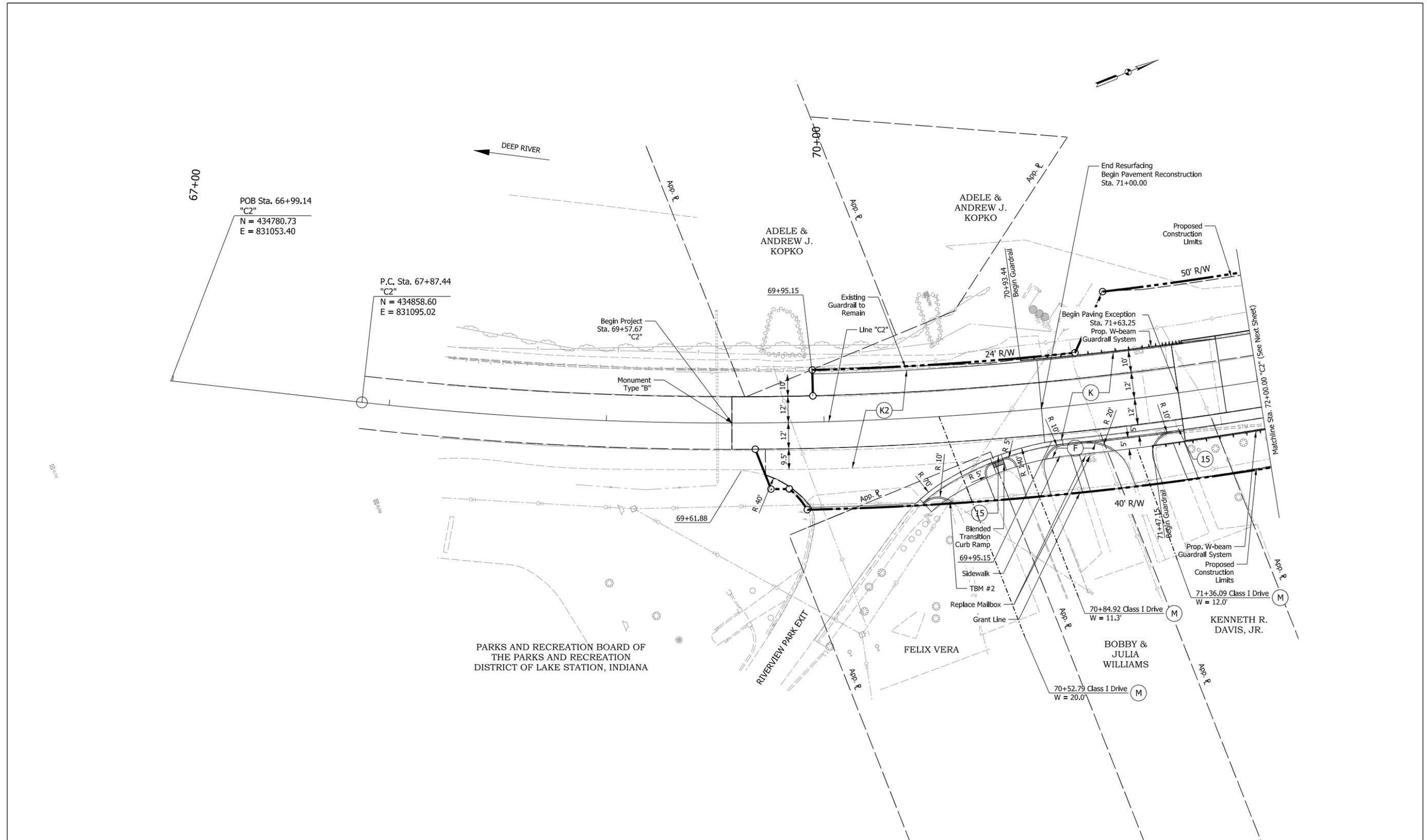
**NOT FOR
CONSTRUCTION**

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: <u>CMD</u> 08/26/2022	DRAWN: <u>CMD</u> 08/26/2022	
CHECKED: <u>EN</u> 08/26/2022	CHECKED: <u>EN</u> 08/26/2022	

**INDIANA
DEPARTMENT OF TRANSPORTATION**

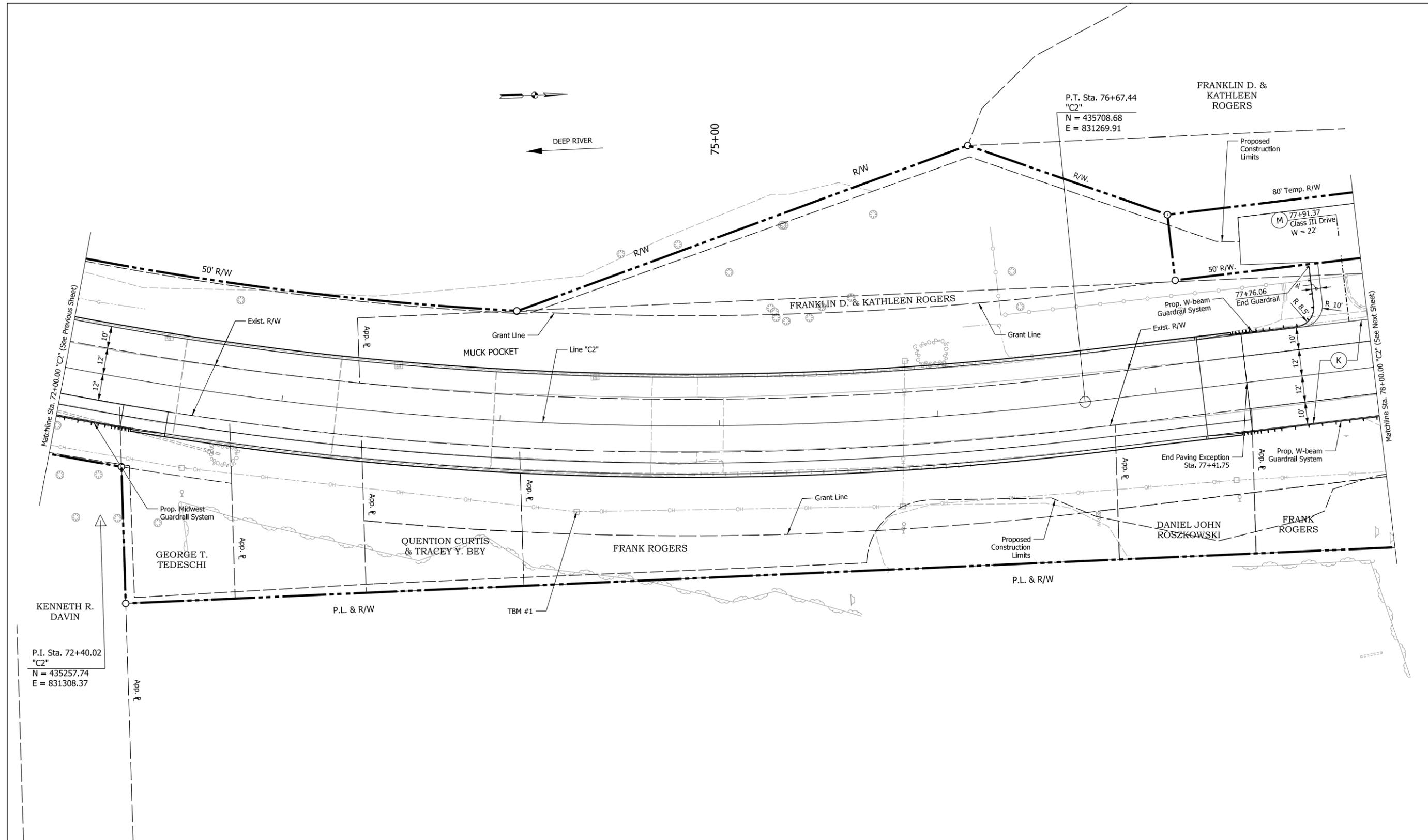
**SUPERELEVATION DETAILS
Line "C2"**

HORIZONTAL SCALE	BRIDGE FILE
N/A	(6)51-45-10466-B
VERTICAL SCALE	DESIGNATION
N/A	1900012
SHEETS	
9 of 52	
CONTRACT	PROJECT
B-42442	1900012



LEGEND (F) Concrete Sidewalk 220 lbs/sy QC/QA-HMA, 3, 76, Surface, 12.5 mm (K) Full Depth HMA: 220 lbs/sy QC/QA-HMA, 3, 76, Surface, 12.5 mm 275 lbs/sy QC/QA-HMA, 3, 70, Intermediate, 19.0 mm 1,155 lbs/sy QC/QA-HMA, 3, 64, Base, 25.0 mm 6" Course Aggregate No. 53 Subgrade Treatment, Type IC (K2) HMA Milling and Resurfacing: 220 lbs/sy QC/QA-HMA, 3, 76, Surface, 12.5 mm (M) PCC for Approaches, 6 in., on Dense Graded Subbase on Subgrade Treatment Type II (6 in. Coarse Aggregate No. 53) (15) Curb and Gutter, Concrete	NOT FOR CONSTRUCTION	RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____	HORIZONTAL SCALE 1" = 20' VERTICAL SCALE _____ BRIDGE FILE (6)51-45-10466-B DESIGNATION 1900012 SHEETS 10 of 52 CONTRACT B-42442 PROJECT 1900012
		DESIGNED: <u>MSM</u> 08/26/2022 DRAWN: <u>AMN</u> 08/26/2022	
		CHECKED: <u>EN</u> 08/26/2022 CHECKED: <u>EN</u> 08/26/2022	
		INDIANA DEPARTMENT OF TRANSPORTATION CONSTRUCTION DETAIL LINE "C2" STA. 72+00.00 TO STA. 78+00.00	

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 Model: Default



LEGEND

(F)	Concrete Sidewalk
(K)	Full Depth HMA: 220 lbs/sy QC/QA-HMA, 3, 76, Surface, 12.5 mm 275 lbs/sy QC/QA-HMA, 3, 70, Intermediate, 19.0 mm 1,155 lbs/sy QC/QA-HMA, 3, 64, Base, 25.0 mm 6" Course Aggregate No. 53 Subgrade Treatment, Type IC

(K2)	HMA Milling and Resurfacing: 220 lbs/sy QC/QA-HMA, 3, 76, Surface, 12.5 mm
(M)	PCC for Approaches, 6 in., on Dense Graded Subbase on Subgrade Treatment Type II (6 in. Coarse Aggregate No. 53)
(15)	Curb and Gutter, Concrete

NOT FOR CONSTRUCTION

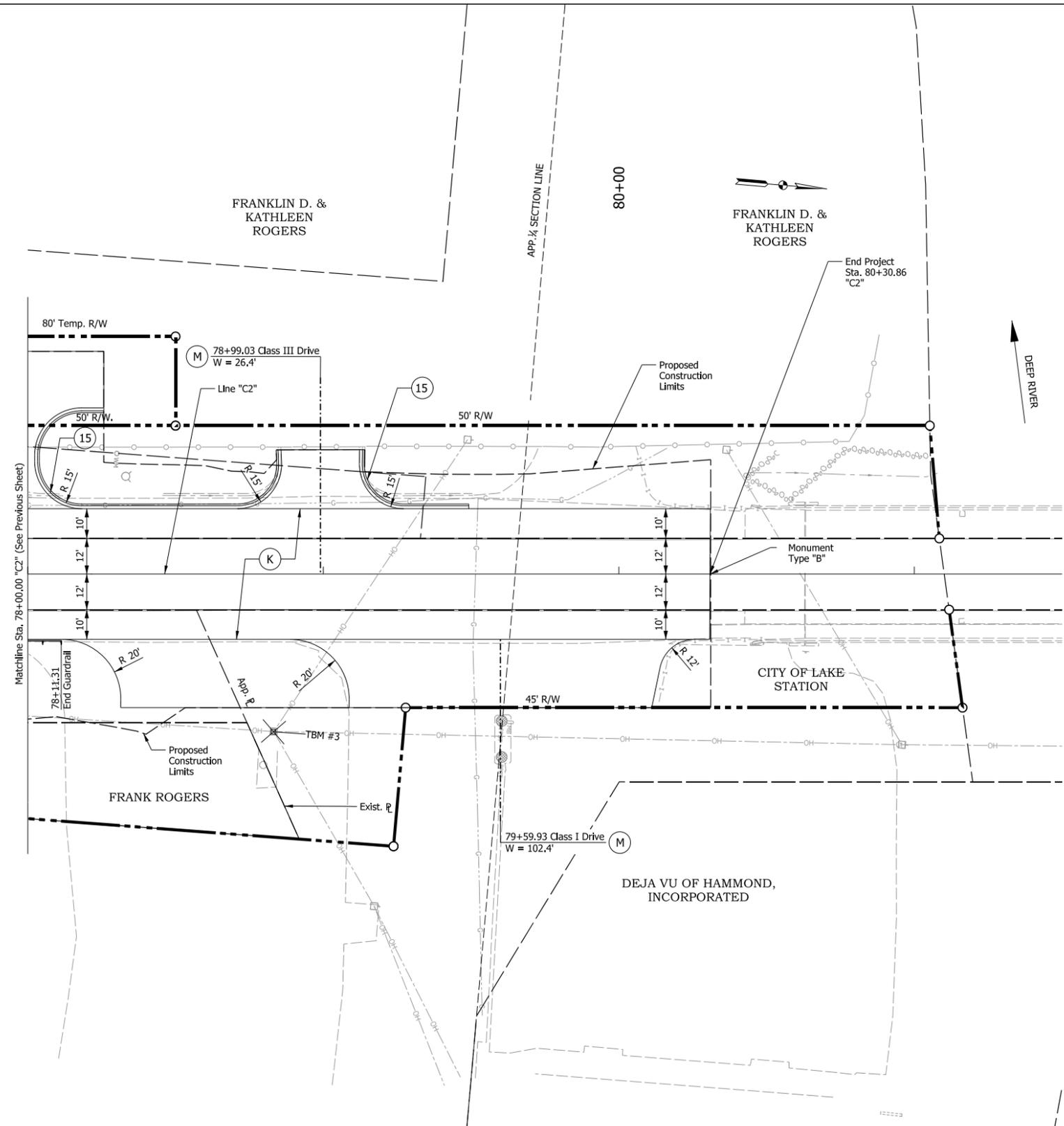
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: MSM	08/26/2022	DRAWN: AMN
CHECKED: EN	08/26/2022	CHECKED: EN

INDIANA
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAIL
LINE "C2"
STA. 66+99.14 TO STA. 72+00.00

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	(6)51-45-10466-B
VERTICAL SCALE	DESIGNATION
	1900012
	SHEETS
	11 of 52
CONTRACT	PROJECT
B-42442	1900012

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LEGEND

(F)	Concrete Sidewalk
(K)	Full Depth HMA: 220 lbs/sy QC/QA-HMA, 3, 76, Surface, 12.5 mm 275 lbs/sy QC/QA-HMA, 3, 70, Intermediate, 19.0 mm 1,155 lbs/sy QC/QA-HMA, 3, 64, Base, 25.0 mm 6" Course Aggregate No. 53 Subgrade Treatment, Type 1C

(K2)	HMA Milling and Resurfacing: 220 lbs/sy QC/QA-HMA, 3, 76, Surface, 12.5 mm
(M)	PCC for Approaches, 6 in., on Dense Graded Subbase on Subgrade Treatment Type II (6 in. Coarse Aggregate No. 53)
(15)	Curb and Gutter, Concrete

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: MSM	08/26/2022	DRAWN: AMN
CHECKED: EN	08/26/2022	CHECKED: EN

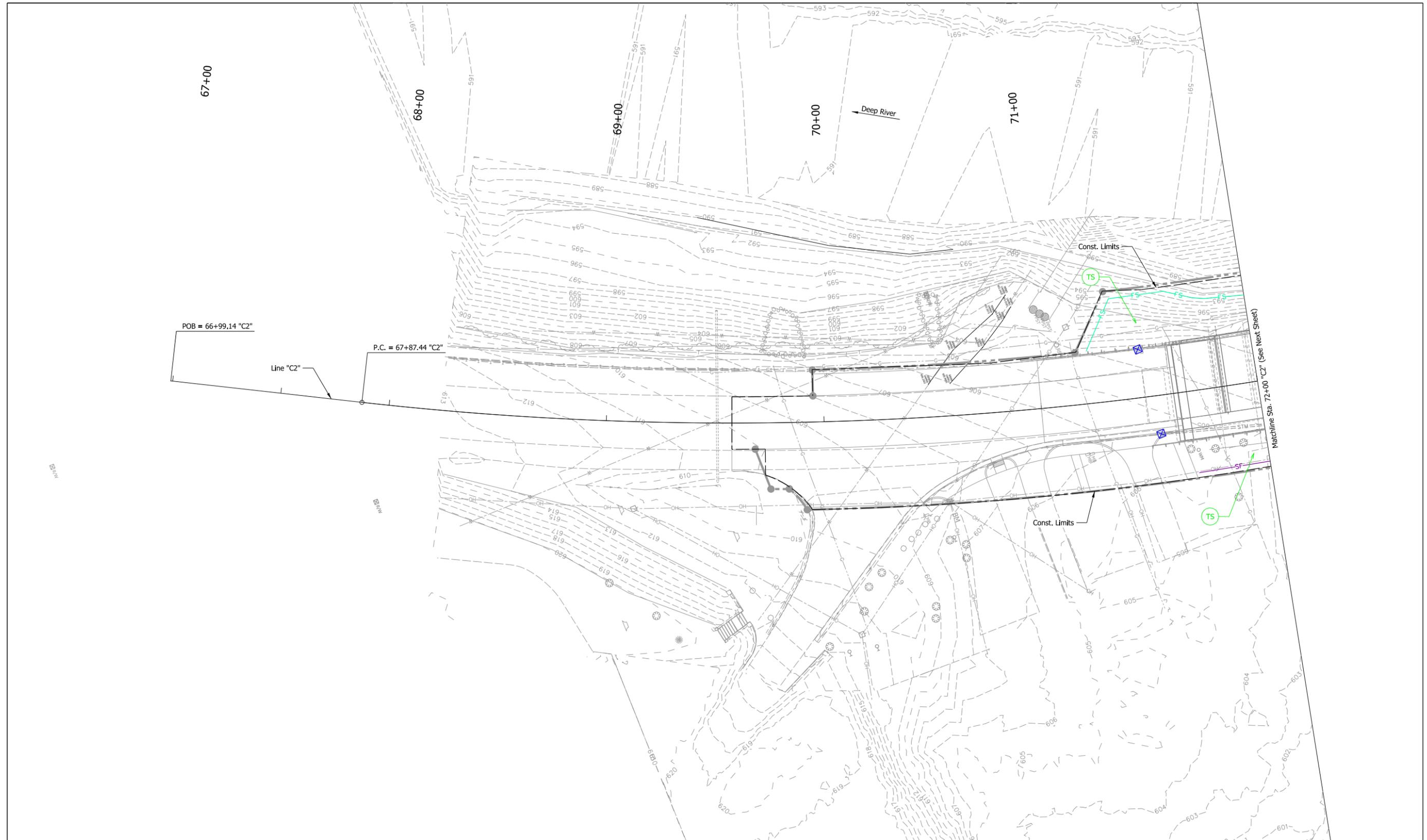
INDIANA
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAIL
LINE "C2"
STA. 78+00.00 TO STA. 81+50.00

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	(6)51-45-10466-B
VERTICAL SCALE	DESIGNATION
	1900012
	SHEETS
	12 of 52
CONTRACT	PROJECT
B-42442	1900012

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Erosion Control Legend	
	Temporary Inlet Protection
	Temporary Seeding
	Silt Fence
	Fiber Roll

NOT FOR CONSTRUCTION

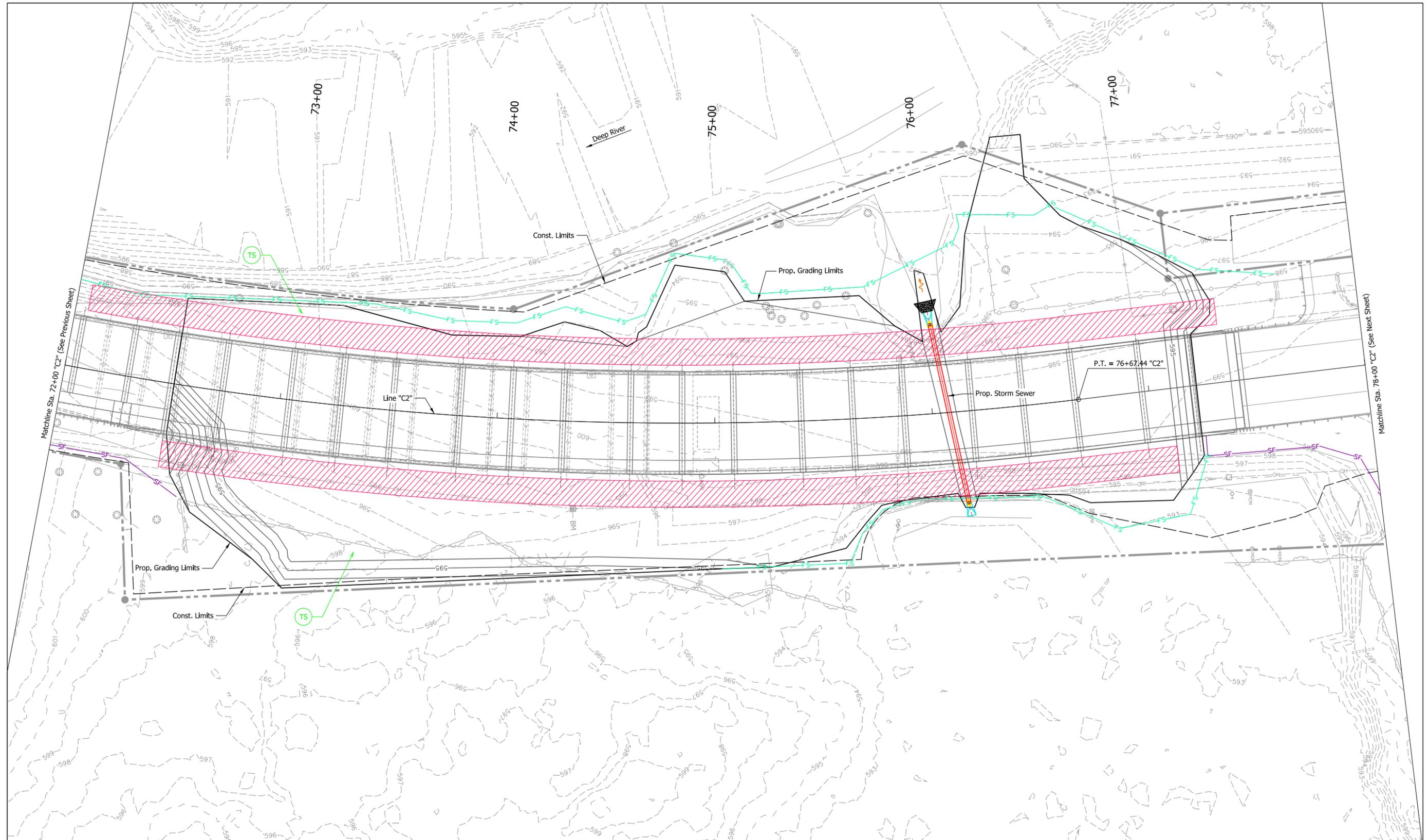
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DESIGNED: BJZ	08/26/2022	DRAWN: CHP
CHECKED: EN	08/26/2022	CHECKED: EN

INDIANA DEPARTMENT OF TRANSPORTATION

TEMPORARY EROSION AND SEDIMENT CONTROL PLANS

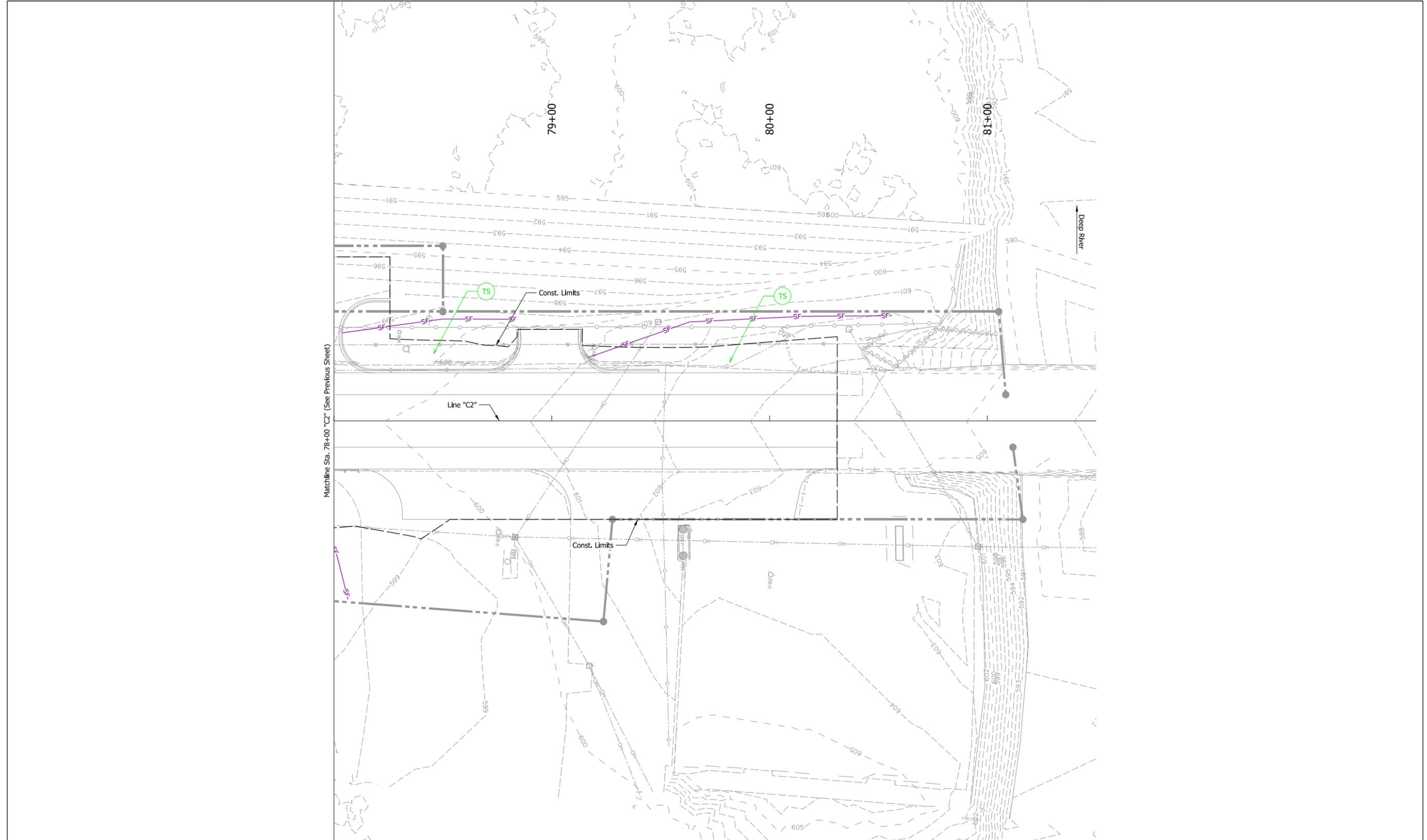
HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	(6)51-45-10466-B
VERTICAL SCALE	DESIGNATION
1" = 20'	1900012
	SHEETS
	14 of 52
CONTRACT	PROJECT
B-42442	1900012

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Model: Default



NOT FOR CONSTRUCTION	RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION TEMPORARY EROSION AND SEDIMENT CONTROL PLANS	HORIZONTAL SCALE 1" = 20'	BRIDGE FILE (6)51-45-10466-B
	DESIGNED: BJZ 08/26/2022	DRAWN: CHP 08/26/2022		VERTICAL SCALE 1" = 20'	DESIGNATION 1900012
	CHECKED: EN 08/26/2022	CHECKED: EN 08/26/2022		SHEETS 15 of 52	
	CONTRACT B-42442			PROJECT 1900012	

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 Model: Default

Erosion Control Legend

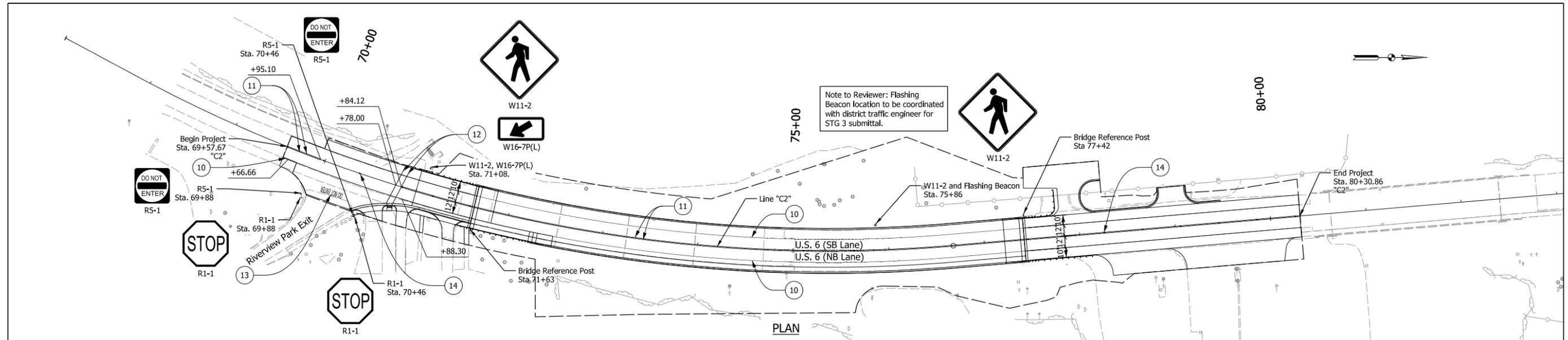
- (TS) Temporary Seeding
- SF— Silt Fence

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL		DESIGN ENGINEER	DATE
DESIGNED: BJZ	08/26/2022	DRAWN: CHP	08/26/2022
CHECKED: EN	08/26/2022	CHECKED: EN	08/26/2022

INDIANA DEPARTMENT OF TRANSPORTATION
TEMPORARY EROSION AND SEDIMENT CONTROL PLANS

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	(6)51-45-10466-B
VERTICAL SCALE	DESIGNATION
1" = 20'	1900012
SHEETS	
16 of 52	
CONTRACT	PROJECT
B-42442	1900012



SHEET SIGN & POST SUMMARY

PLAN SHEET NO. / LINE	SIGN LOCATION (Sta.)	SIGN CODE	SIGN SIZE (in. x in.)	GROUND-MOUNTED SIGN AREA (ft²)			MOUNTED ON PANEL SIGN, AREA (ft²)	POST									REMARKS
				SQUARE				UNREINFORCED ANCHOR			REINFORCED ANCHOR			REINFORCED ANCHOR			
				2 1/2" x 2 1/2" x 12 ga. (TYPE 3)				2" x 2" x 12 ga. (TYPE 2)			2 1/4" x 2 1/4" x 12 ga. (TYPE 1)			2 1/4" x 2 1/4" x 12 ga. (TYPE 1)			
				POST LENGTH (FT)				POST LENGTH (FT)			POST LENGTH (FT)			POST LENGTH (FT)			
			0.080"	0.100"	0.125"	0.080"	1	2	TOTAL	1	2	TOTAL	1	TOTAL	TOTAL		
Line "C2"	69+88, Rt.	R1-1	30 x 30	6.25											12.0		
		R5-1	36 x 36		9.00												
Line "C2"	70+46, Rt.	R1-1	30 x 30	6.25											12.0		
		R5-1	36 x 36		9.00												
Line "C2"	71+08, Lt.	W11-2	36 x 36		9.00										13.0	Fluorescent yellow-green background	
		W16-7P(L)	24 x 12	2.00												Fluorescent yellow-green background	
Line "C2"	75+86, Lt.	W11-2	36 x 36		9.00											Sign Mounted on Utility Pole with Flashing Beacon	

BRIDGE REFERENCE POST MARKER TABLE

LINE	LOCATION	SIGN CODE	SIZE (IN. x IN.)	POST LENGTH (FT)	REFERENCE POST (EACH)
C2	71+63, Rt.	16	6 x 12	6	1
		-13	4 x 12		1
C2	77+42, Lt.	16	6 x 12	6	1
		-13	4 x 12		1

PAVEMENT MARKINGS TABLE

LOCATION	LINE, MULTI-COMPONENT									LINE, PAINT		LINE, THERMOPLASTIC					TRANSVERSE MARKING, PREFORMED PLASTIC		PAVEMENT MESSAGE MARKINGS, THERMOPLASTIC		PAVEMENT MESSAGE MARKINGS, PREFORMED PLASTIC		SNOWPLOWABLE RAISED PAVEMENT MARKER			DELINEATOR POST FLEXIBLE	DELINEATOR W/POST D3 3 IN. DIA.		
	BROKEN WHITE 6 IN. FT	BROKEN YELLOW 6 IN. FT	BROKEN WHITE 5 IN. FT	SOLID YELLOW 6 IN. FT	SOLID WHITE 6 IN. FT	SOLID WHITE 10 IN. FT	SOLID WHITE 12 IN. FT	SOLID WHITE 16 IN. FT	SOLID WHITE 6 IN. FT	SOLID YELLOW 6 IN. FT	SOLID WHITE 6 IN. FT	SOLID YELLOW 6 IN. FT	SOLID WHITE 24 IN. FT	BROKEN WHITE 6 IN. FT	BROKEN YELLOW 6 IN. FT	STOP LINE 24 IN. FT	CROSS WALK 8 IN. FT	DO NOT ENTER EACH	LANE ARROW EACH	WORN ONLY EACH	LANE ARROW EACH	ONE WAY WHITE EACH	TWO WAY YELLOW / RED EACH	TWO WAY WHITE / RED EACH	DELINEATOR POST FLEXIBLE EACH	DELINEATOR W/POST D3 3 IN. DIA. EACH			
	Sta. 69+57.67 to 80+30.88 Lt.																1067.6												
Sta. 69+57.67 to 69+95.10																74.9													
Sta. 70+81.65 to 80+30.87																1898.4													
Sta. 69+57.67 to 69+63.48 Rt.																5.9													
Sta. 70+88.30 to 80+30.87 Rt.																947.0													
Sta. 70+78.00																													
Sta. 70+84.12																		43.6											
Sta. 69+57.67 to 71+63.03																													
Sta. 77+41.75 to 80+30.87																													
Sta. 70+17.28																													

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- Legend**
- ⊞ Proposed Ground Mounted Sheet Sign, Both Sides
 - ⊞ Proposed Ground Mounted Sheet Sign, Single Sides
 - ⑩ Line, Thermoplastic, Solid, White, 6 in.
 - ⑪ Line, Thermoplastic, Solid, Yellow, 6 in.
 - ⑫ Transverse Marking, Paint, Crosswalk, 8 in.
 - ⑬ Pavement Message Marking, Thermoplastic, DO NOT ENTER
 - ⑭ Snowplowable Raised Pavement Marker

NOT FOR CONSTRUCTION

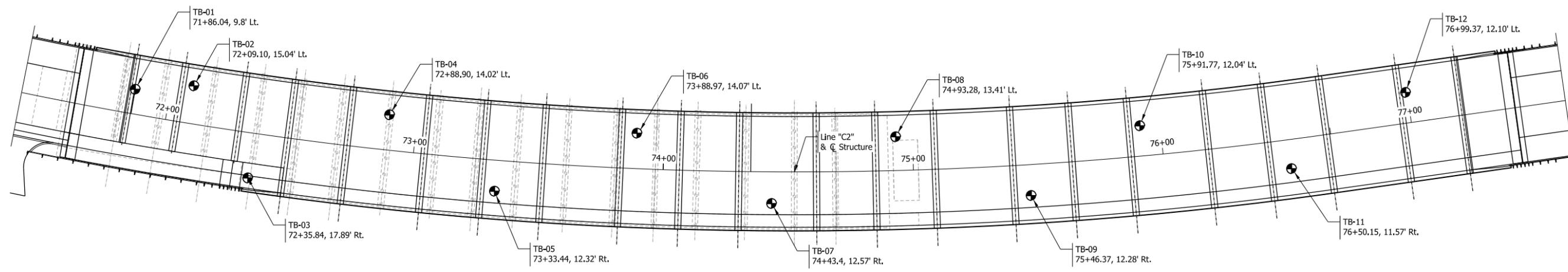
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DESIGNED: CMD 08/26/2022	DRAWN: CHP 08/26/2022	
CHECKED: EN 08/26/2022	CHECKED: EN 08/26/2022	

INDIANA DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS AND SIGNINGS

HORIZONTAL SCALE 1" = 50'	BRIDGE FILE (6)51-45-10466-B
VERTICAL SCALE N/A	DESIGNATION 1900012
	SHEETS 17 of 52
CONTRACT B-42442	PROJECT 1900012

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Model: Default



BORING PLAN
Scale: 1" = 20'-0"

PILE LOADING FOR GEOTECHNICAL TESTING											
	Bent No. 1 & Pier No. 2	Pier No. 3 & 4	Pier No. 5 & 6	Bent No. 7 & 8	Pier No. 9 & 10	Pier No. 11 & 12	Pier No. 13 & 14	Pier No. 15 & 16	Pier No. 17 & 18	Pier No. 19 & 20	Pier No. 21 & 22
Pile Size, Type, and Grade	16" Dia. x 0.375" Steel Pipe Piles A252, Grade 3 Steel, 45 ksi										
Factored Design Load, Q _f (kip)	221	221	221	221	221	221	221	221	221	221	221
Factored Design Soil Resistance, R _r (kips)	223	227	224	221	222	222	222	224	223	225	225
Resistance Factor for Axial Compression, φ _{DM}	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Drag Force at Neutral Plane, DF (kips)	-	-	-	-	-	-	-	-	-	-	-
Nominal Soil Resistance, R _s (kips)	319	324	320	316	317	317	317	319	318	321	321
Scour Zone Friction, R _{scour} (kips)	0	0	0	4	4	5	10	15	10	7	0
Nominal Driving Resistance, R _{DR} (kips)	319	324	320	320	321	322	327	334	328	328	321
Minimum Pile Tip Elevation	-	-	-	-	-	-	-	-	-	-	-
Estimated Pile Tip Elevation	513.7	521.8	505.1	503.8	509.6	502.5	504.7	499.2	501.1	502.6	508.6
Testing Method	Standard Specifications Section 701.05(b)										

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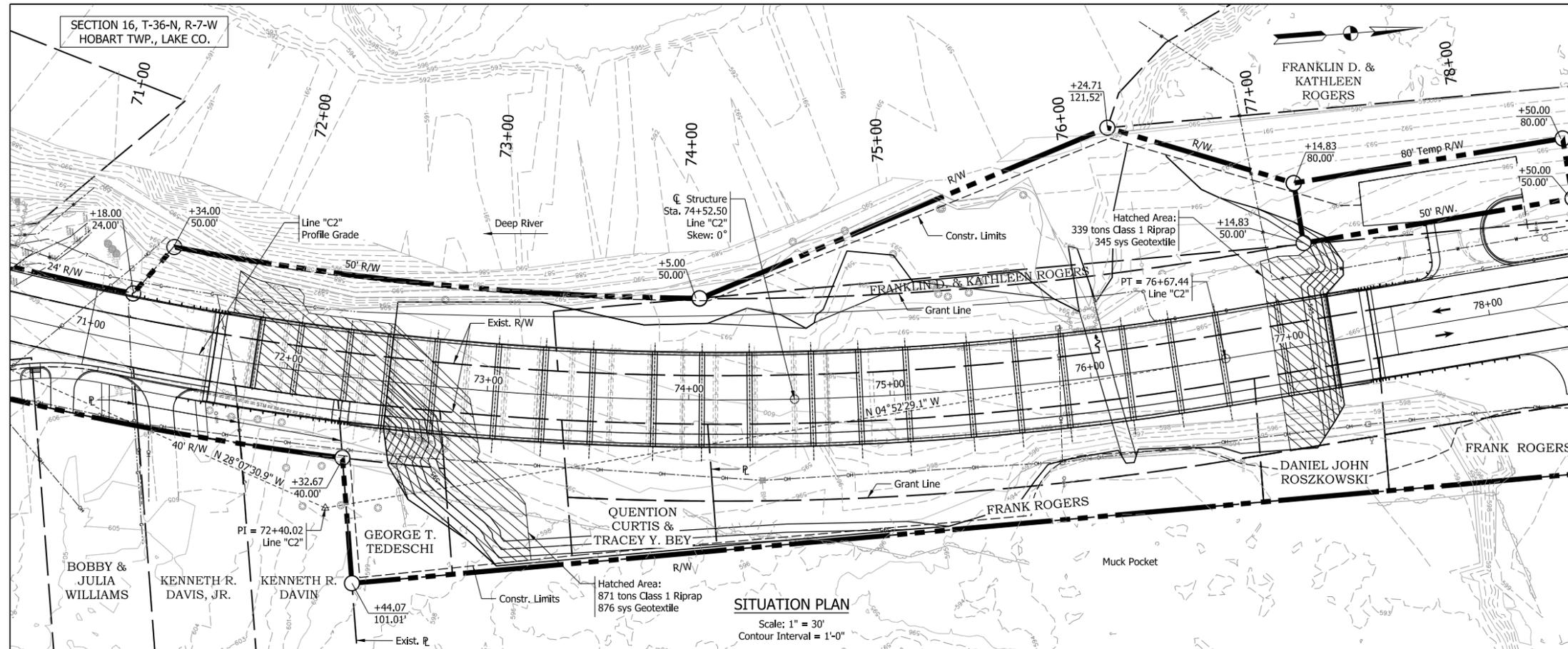
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: CHP	08/26/2022	DRAWN: CHP
CHECKED: JLP	08/26/2022	CHECKED: JLP

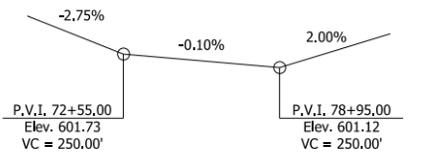
INDIANA DEPARTMENT OF TRANSPORTATION

SOIL BORINGS

HORIZONTAL SCALE	BRIDGE FILE
NTS	(6)51-45-10466-B
VERTICAL SCALE	DESIGNATION
NTS	1900012
	SHEETS
	18 of 52
CONTRACT	PROJECT
B-42442	1900012



EXISTING STRUCTURE
 The existing structure ((6)51-45-01943 B) is a 16 span reinforced concrete slab bridge built in 1941 with a 19.7 ft. maximum span length and 47 ft. out-to-out coping width. Existing structure to be removed.



PROFILE GRADE DATA
 ALONG LINE "C2"

HYDRAULIC DATA

Water Opening Required	N/A	sq ft
Water Opening Provided	2620	sq ft
Drainage Area	148.0	sq mi
Design Discharge, Q100	5,400	cfs
Velocity	1.36	ft/s
Q100 Elev.	601.64	ft
Estimated Scour Elev.	581.77	ft
Backwater at Q100	0.04	ft
Existing Waterway Opening	1,059	sq ft
Existing Backwater	0.10	ft
Low Structure Elev.	599.29	ft
Existing Low Structure Elev.	597.01	ft

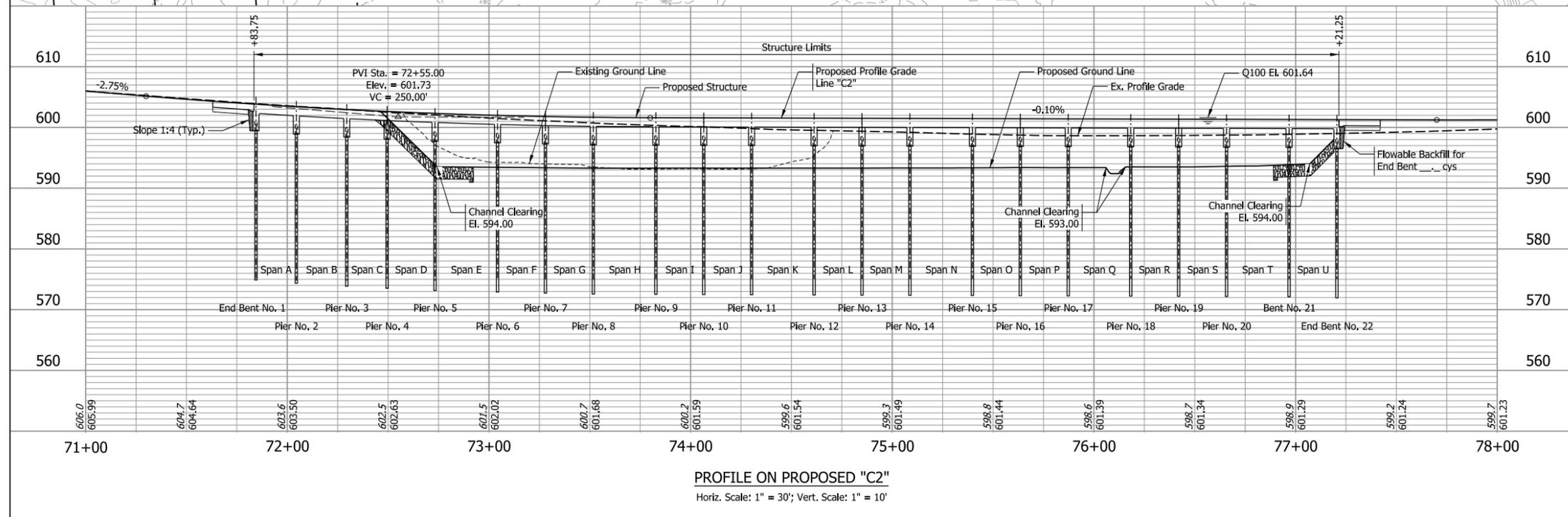
HYDRAULIC SCOUR DATA

Q100 Discharge	5,400	cfs
Q100 Elev.	601.64	ft
Velocity at Q100	1.36	ft/s
Scour Depth (Contraction)	6.07	ft
Scour Depth (Total)	7.91	ft
Low Scour Elev.	583.90	ft
Q500 Discharge	7180	cfs
Q500 Elev.	604.11	ft
Velocity at Q500	1.55	ft/s
Scour Depth (Contraction)	8.46	ft
Scour Depth (Total)	10.04	ft
Low Scour Elev.	581.77	ft

EARTHWORK TABULATION

Fill +20%	445	cys
Common Excavation	995	cys
Total Waterway Excavation	5093	cys
Usable Waterway Excavation (70%)	3570	cys
Unusable Waterway Excavation (30%)	1523	cys
Surplus Foundation Excavation	0	cys
Waste	4120	cys
Benching (Estimated)	0	cys

REINFORCED CONCRETE SLAB BRIDGE
 UNIT 1 - 3 SPANS: 20'-0", 25'-0" & 20'-0"
 UNIT 2 THRU 7 - 3 SPANS: 23'-9", 31'-0" & 23'-9"
 39'-0" CLEAR ROADWAY; 0 deg. Skew
 US6 OVER MUCK POCKET
 LAKE COUNTY



RECOMMENDED FOR APPROVAL

DESIGNED: CHP	08/26/2022	DRAWN: CHP	08/26/2022
CHECKED: JLP	08/26/2022	CHECKED: JLP	08/26/2022

INDIANA
 DEPARTMENT OF TRANSPORTATION
 LAYOUT

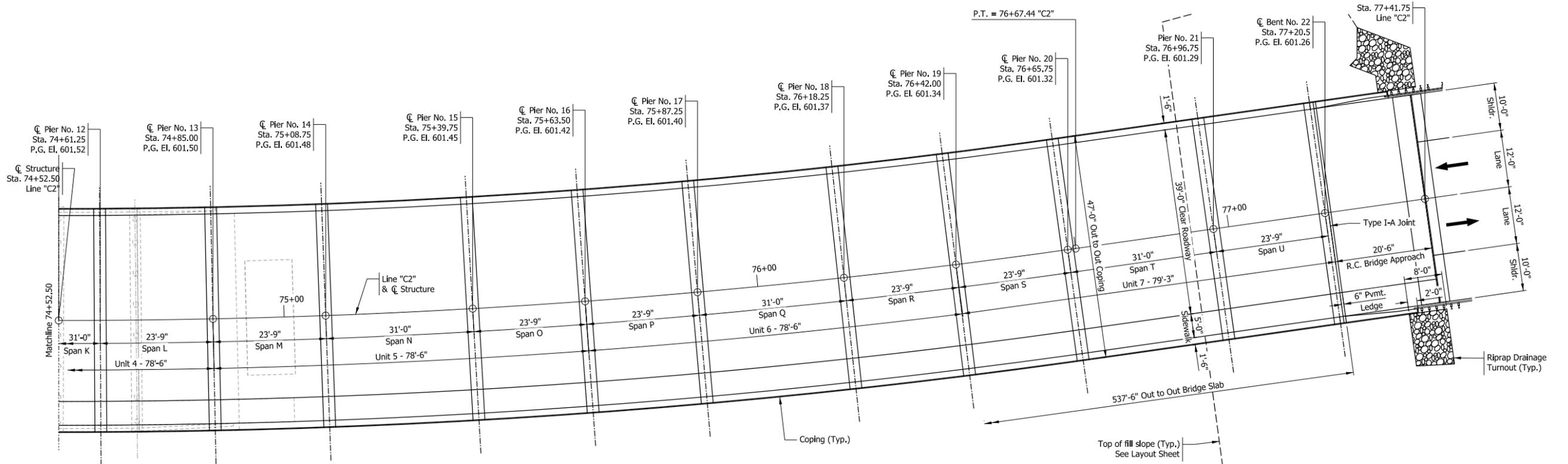
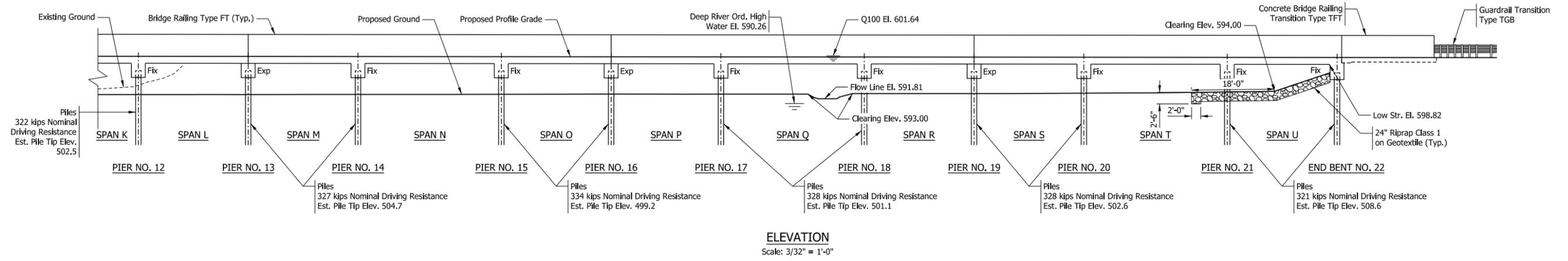
HORIZONTAL SCALE	AS SHOWN	BRIDGE FILE	(6)51-45-10466-B
VERTICAL SCALE	AS SHOWN	DESIGNATION	1900012
		SHEETS	35 of 52
		CONTRACT	PROJECT
		B-42442	1900012

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NOT FOR CONSTRUCTION

STRUCTURE TO BE BUILT ON A 250' VERTICAL CURVE, -0.10% GRADE AND 1527.89' HORIZONTAL CURVE

Note to Reviewer: The Muck Pocket bridge conveys relief flow for Deep River. Therefore the OHWM is shown for the main channel of Deep River.



REINFORCED CONCRETE SLAB BRIDGE
UNIT 1 - 3 SPANS: 20'-0", 25'-0" & 20'-0"
UNIT 2 THRU 7 - 3 SPANS: 23'-9", 31'-0" & 23'-9"
39'-0" CLEAR ROADWAY; 0° Skew
US6 OVER MUCK POCKET
LAKE COUNTY

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: CHP	08/26/2022	DRAWN: CHP
CHECKED: JLP	08/26/2022	CHECKED: JLP

INDIANA DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

HORIZONTAL SCALE	BRIDGE FILE
AS SHOWN	(6)51-45-10466-B
VERTICAL SCALE	DESIGNATION
AS SHOWN	1900012
SHEETS	
37	of 52
CONTRACT	PROJECT
B-42442	1900012

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GENERAL NOTES

Reinforcing steel cover shall be 2½" in top and 1" minimum in bottom of floor slab, 3" in footings, except bottom steel which shall be 4", and 2" in all other parts, unless noted.

Surface seal all exposed surfaces of concrete railing. Surface seal to be paid as a lump sum item. Estimated quantity is 8,863 sft.

DESIGN DATA

LIVE LOAD

Superstructure and Substructure designed for HL-93 loading, in accordance with AASHTO LRFD Bridge Design Specifications, Ninth Edition, 2020.

DEAD LOAD

Actual weight plus 35 lb/ft² for future wearing surface

FLOOR SLAB

Designed with a 17½" structural depth plus ½" sacrificial wearing surface.

DESIGN STRESSES

CONCRETE

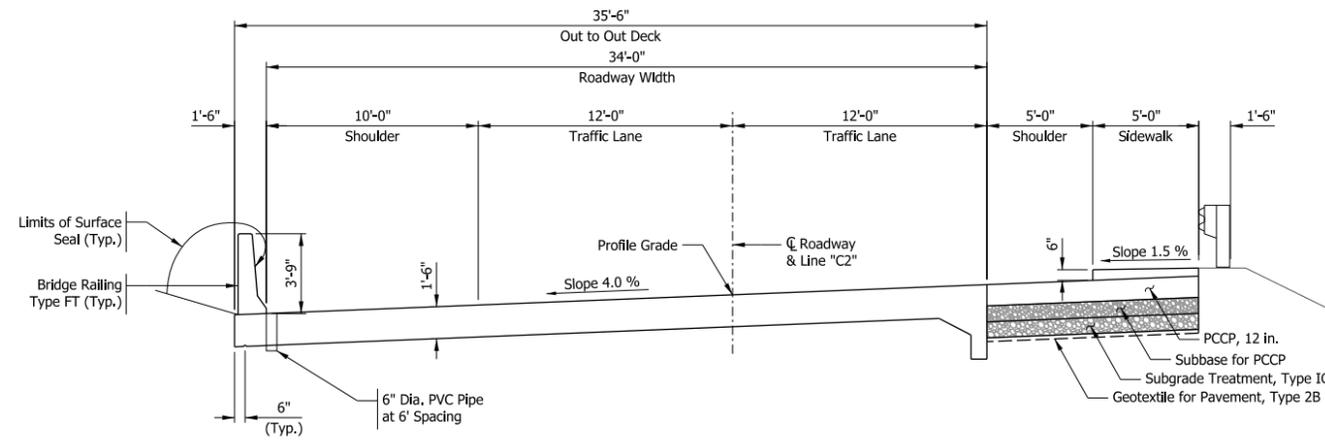
Class C f_c = 4,000 psi
Class A f_c = 3,500 psi

REINFORCING STEEL

Grade 60 f_y = 60,000 psi

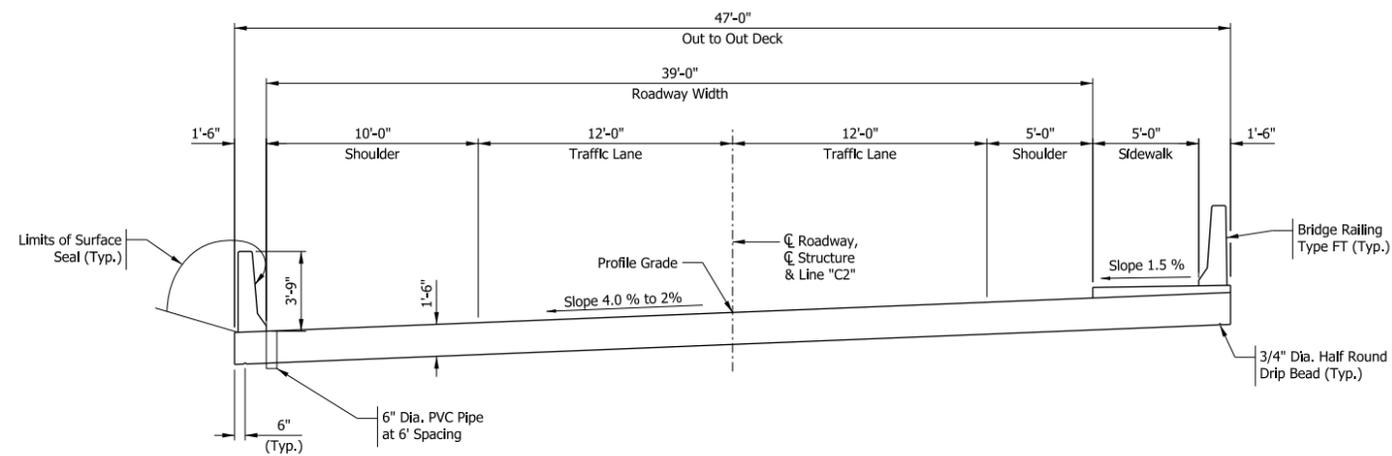
SEISMIC DESIGN DATA

Seismic Performance Zone Zone 1
Seismic Soil Profile Type Class E
Modified PGA 0.098
S_{DS} 0.220
S_{D1} 0.130



TYPICAL SECTION

UNIT 1
Scale: ¼" = 1'-0"



TYPICAL SECTION

UNIT 2 THRU UNIT 7
Scale: ¼" = 1'-0"

REINFORCED CONCRETE SLAB BRIDGE
UNIT 1 - 3 SPANS: 20'-0", 25'-0" & 20'-0"
UNIT 2 THRU 7 - 3 SPANS: 23'-9", 31'-0" & 23'-9"
39'-0" CLEAR ROADWAY; 0° Skew
US6 OVER MUCK POCKET
LAKE COUNTY

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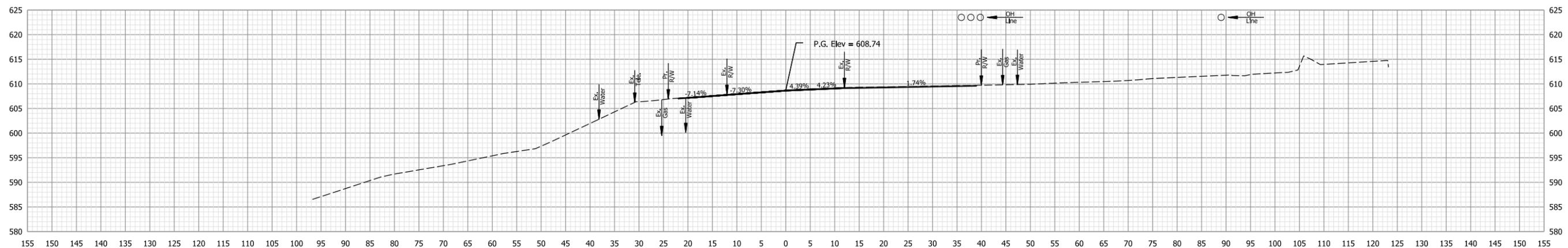
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RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: CHP	08/26/2022	DRAWN: CHP
CHECKED: JLP	08/26/2022	CHECKED: JLP

INDIANA
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

HORIZONTAL SCALE	BRIDGE FILE
AS SHOWN	(6)51-45-10466-B
VERTICAL SCALE	DESIGNATION
AS SHOWN	1900012
SHEETS	
CONTRACT	PROJECT
B-42442	1900012

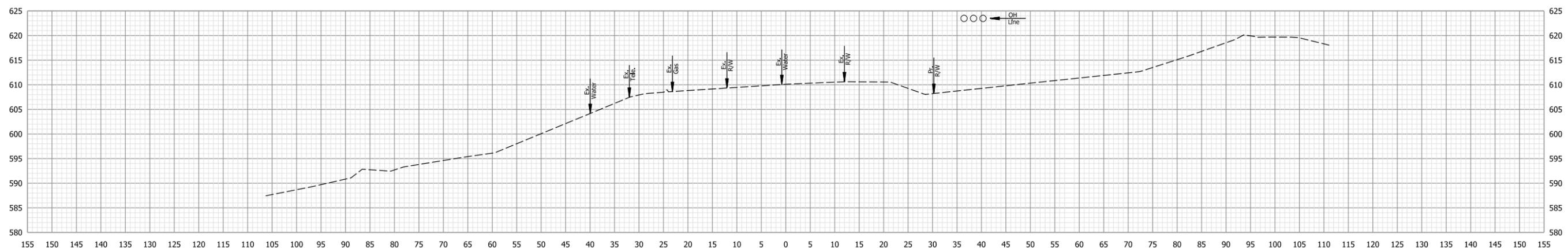


Ac = 0.0 SFT
Vc = 0 CYS

Af = 0.0 SFT
Vf = 0 CYS

Ab = 0.0 SFT
Vb = 0 CYS

70+00



Ac = 0.0 SFT
Vc = 0 CYS

Af = 0.0 SFT
Vf = 0 CYS

Ab = 0.0 SFT
Vb = 0 CYS

69+50

Note to Reviewer: Offset and depth information for the utilities shown will be coordinated throughout project development and the utility verification process.

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: MSM	08/26/2022	DRAWN: MSM
CHECKED: EN	08/26/2022	CHECKED: EN

INDIANA
DEPARTMENT OF TRANSPORTATION

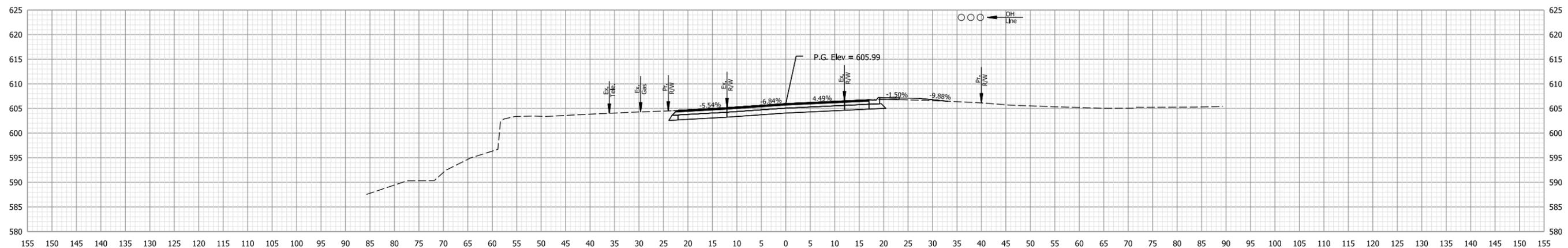
CROSS SECTIONS - US-6

HORIZONTAL SCALE	BRIDGE FILE
1"=10'	(6)51-45-10466-B
VERTICAL SCALE	DESIGNATION
	1900012
	SHEETS
	41 of 52
CONTRACT	PROJECT
B-42442	1900012

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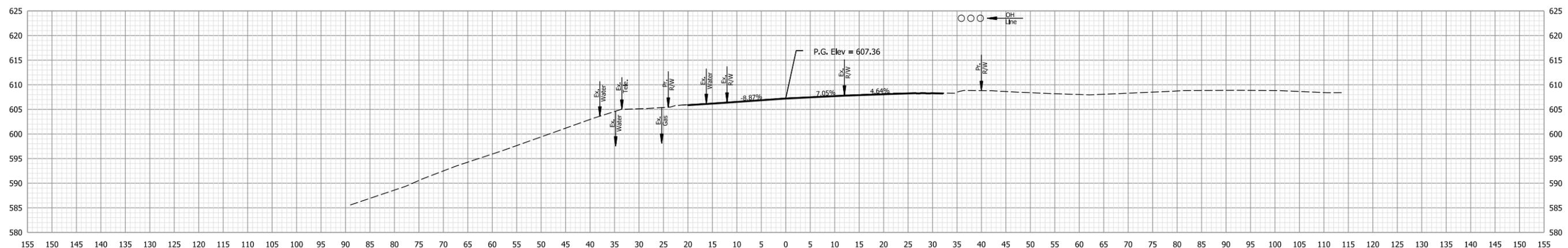
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Model: Default

STA. 69+50 TO STA. 70+00



Ac = 77.6 SFT Af = 1.5 SFT Ab = 0.0 SFT
 Vc = 0 CYS Vf = 0 CYS Vb = 0 CYS

71+00



Ac = 0.0 SFT Af = 0.0 SFT Ab = 0.0 SFT
 Vc = 0 CYS Vf = 0 CYS Vb = 0 CYS

70+50

Note to Reviewer: Offset and depth information for the utilities shown will be coordinated throughout project development and the utility verification process.

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: MSM	08/26/2022	DRAWN: MSM
CHECKED: EN	08/26/2022	CHECKED: EN

INDIANA
DEPARTMENT OF TRANSPORTATION

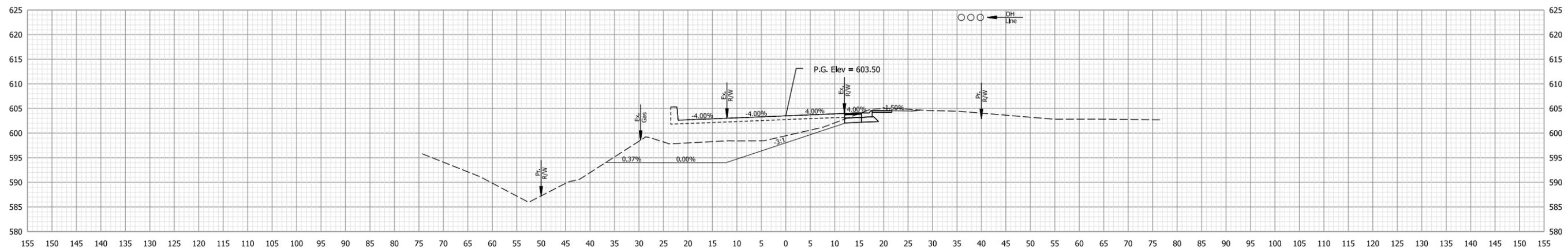
CROSS SECTIONS - US-6

HORIZONTAL SCALE	BRIDGE FILE
1"=10'	(6)51-45-10466-B
VERTICAL SCALE	DESIGNATION
	1900012
	SHEETS
	42 of 52
CONTRACT	PROJECT
B-42442	1900012

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STA. 70+50 TO STA. 71+00

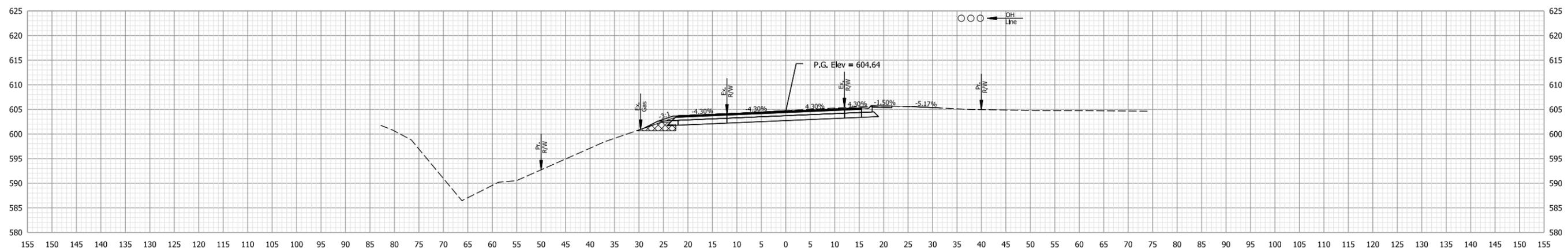


Ac = 15.2 SFT
Vc = 85 CYS

Af = 0.0 SFT
Vf = 1 CYS

Ab = 0.0 SFT
Vb = 0 CYS

PAVING EXCEPTION **72+00**



Ac = 76.7 SFT
Vc = 143 CYS

Af = 1.5 SFT
Vf = 3 CYS

Ab = 8.8 SFT
Vb = 8 CYS

71+50

Note to Reviewer: Offset and depth information for the utilities shown will be coordinated throughout project development and the utility verification process.

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: MSM	08/26/2022	DRAWN: MSM
08/26/2022		08/26/2022
CHECKED: EN	08/26/2022	CHECKED: EN
		08/26/2022

INDIANA DEPARTMENT OF TRANSPORTATION

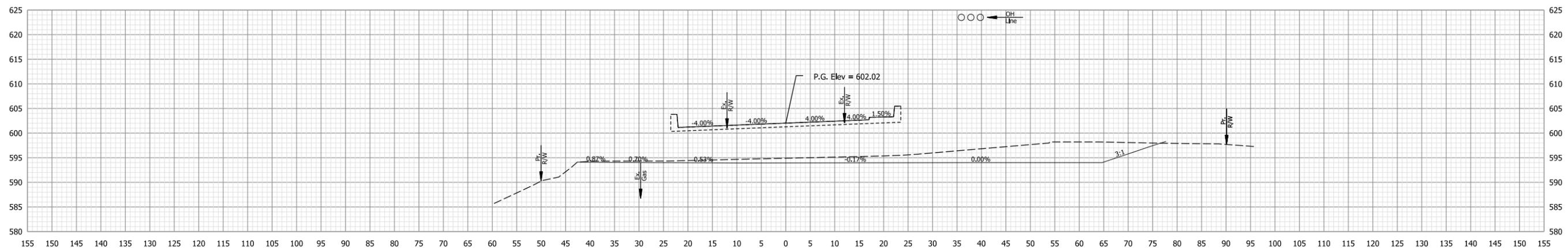
CROSS SECTIONS - US-6

HORIZONTAL SCALE	BRIDGE FILE
1"=10'	(6)51-45-10466-B
VERTICAL SCALE	DESIGNATION
	1900012
	SHEETS
	43 of 52
CONTRACT	PROJECT
B-42442	1900012

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STA. 71+50 TO STA. 72+00

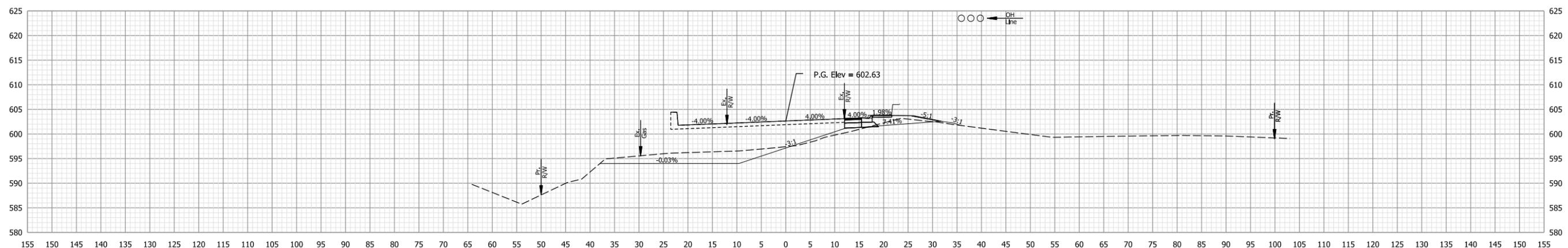


Ac = 0.0 SFT
Vc = 0 CYS

Af = 0.0 SFT
Vf = 0 CYS

Ab = 0.0 SFT
Vb = 0 CYS

PAVING EXCEPTION 73+00



Ac = 0.0 SFT
Vc = 14 CYS

Af = 0.0 SFT
Vf = 0 CYS

Ab = 0.0 SFT
Vb = 0 CYS

PAVING EXCEPTION 72+50

Note to Reviewer: Offset and depth information for the utilities shown will be coordinated throughout project development and the utility verification process.

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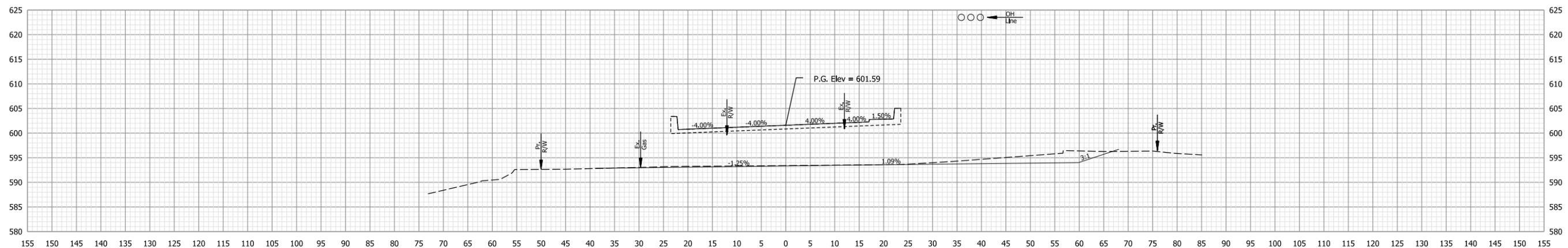
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DESIGNED: MSM	08/26/2022	DRAWN: MSM
CHECKED: EN	08/26/2022	CHECKED: EN

INDIANA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - US-6

HORIZONTAL SCALE	BRIDGE FILE
1"=10'	(6)51-45-10466-B
VERTICAL SCALE	DESIGNATION
	1900012
	SHEETS
	44 of 52
CONTRACT	PROJECT
B-42442	1900012

STA. 72+50 TO STA. 73+00

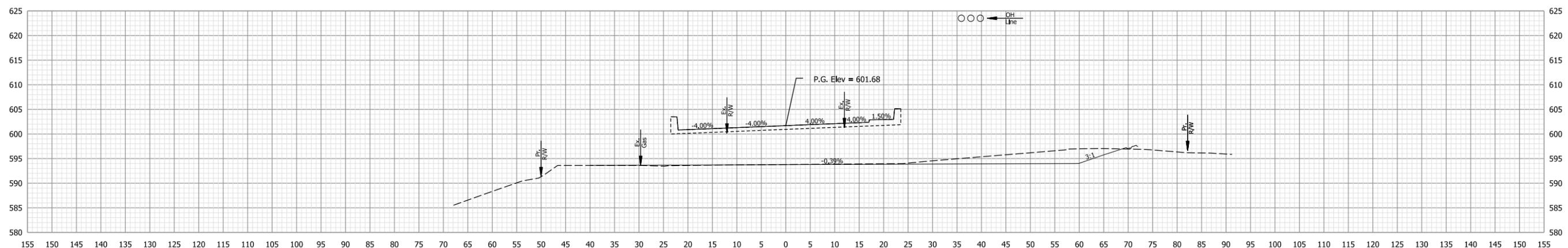


Ac = 0.0 SFT
Vc = 0 CYS

Af = 0.0 SFT
Vf = 0 CYS

Ab = 0.0 SFT
Vb = 0 CYS

PAVING EXCEPTION 74+00



Ac = 0.0 SFT
Vc = 0 CYS

Af = 0.0 SFT
Vf = 0 CYS

Ab = 0.0 SFT
Vb = 0 CYS

PAVING EXCEPTION 73+50

Note to Reviewer: Offset and depth information for the utilities shown will be coordinated throughout project development and the utility verification process.

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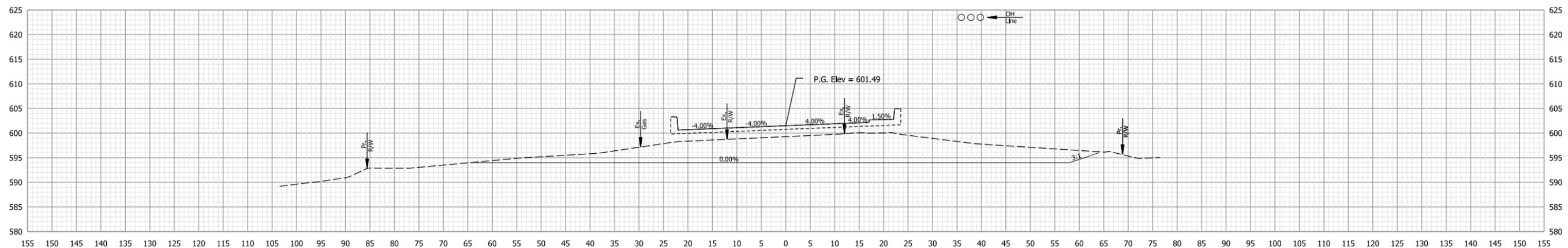
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DESIGNED: MSM	08/26/2022	DRAWN: MSM
CHECKED: EN	08/26/2022	CHECKED: EN

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - US-6

HORIZONTAL SCALE	BRIDGE FILE
1"=10'	(6)51-45-10466-B
VERTICAL SCALE	DESIGNATION
	1900012
	SHEETS
	45 of 52
CONTRACT	PROJECT
B-42442	1900012

STA. 73+50 TO STA. 74+00

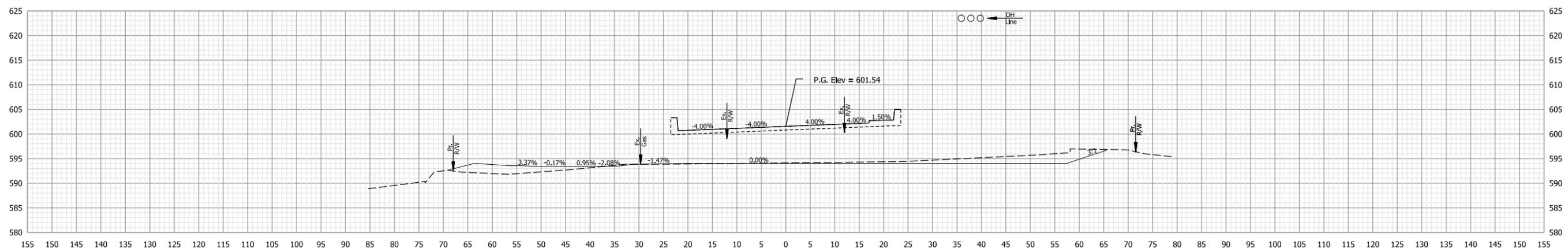


Ac = 0.0 SFT
Vc = 0 CYS

Af = 0.0 SFT
Vf = 0 CYS

Ab = 0.0 SFT
Vb = 0 CYS

PAVING EXCEPTION **75+00**



Ac = 0.0 SFT
Vc = 0 CYS

Af = 0.0 SFT
Vf = 0 CYS

Ab = 0.0 SFT
Vb = 0 CYS

PAVING EXCEPTION **74+50**

Note to Reviewer: Offset and depth information for the utilities shown will be coordinated throughout project development and the utility verification process.

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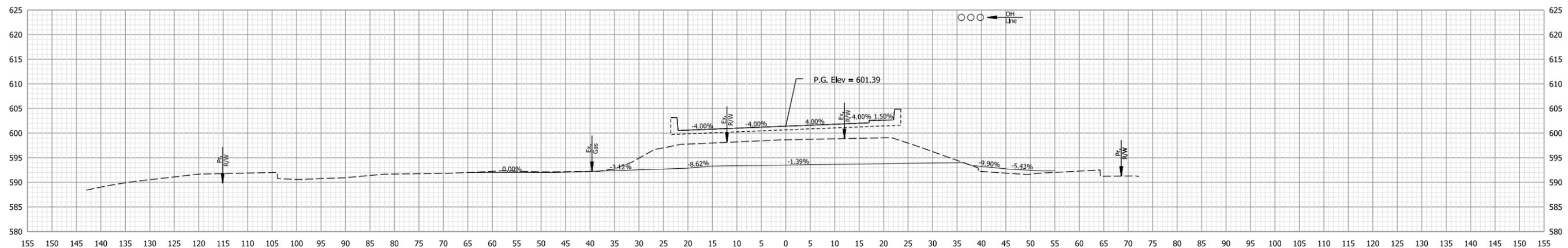
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DESIGNED: MSM	08/26/2022	DRAWN: MSM
CHECKED: EN	08/26/2022	CHECKED: EN

INDIANA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - US-6

HORIZONTAL SCALE	BRIDGE FILE
1"=10'	(6)51-45-10466-B
VERTICAL SCALE	DESIGNATION
	1900012
	SHEETS
	46 of 52
CONTRACT	PROJECT
B-42442	1900012

STA. 74+50 TO STA. 75+00

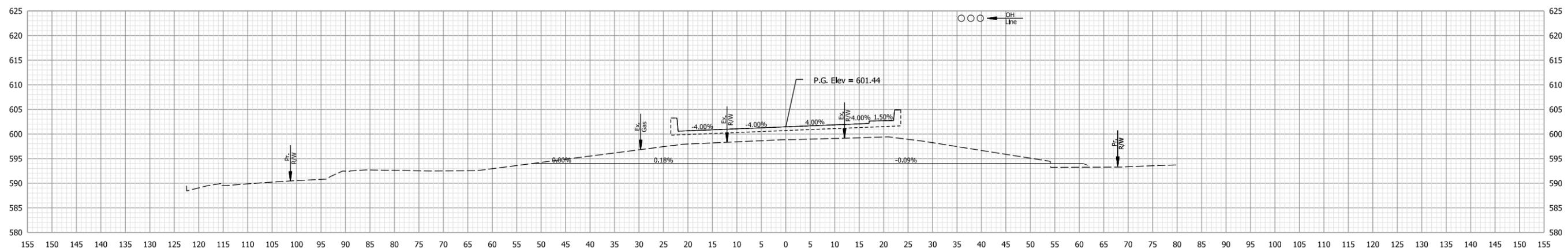


Ac = 0.0 SFT
Vc = 0 CYS

Af = 0.0 SFT
Vf = 0 CYS

Ab = 0.0 SFT
Vb = 0 CYS

PAVING EXCEPTION 76+00



Ac = 0.0 SFT
Vc = 0 CYS

Af = 0.0 SFT
Vf = 0 CYS

Ab = 0.0 SFT
Vb = 0 CYS

PAVING EXCEPTION 75+50

Note to Reviewer: Offset and depth information for the utilities shown will be coordinated throughout project development and the utility verification process.

Pkt: 8/26/2022 7:06:13 PM

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NOT FOR CONSTRUCTION

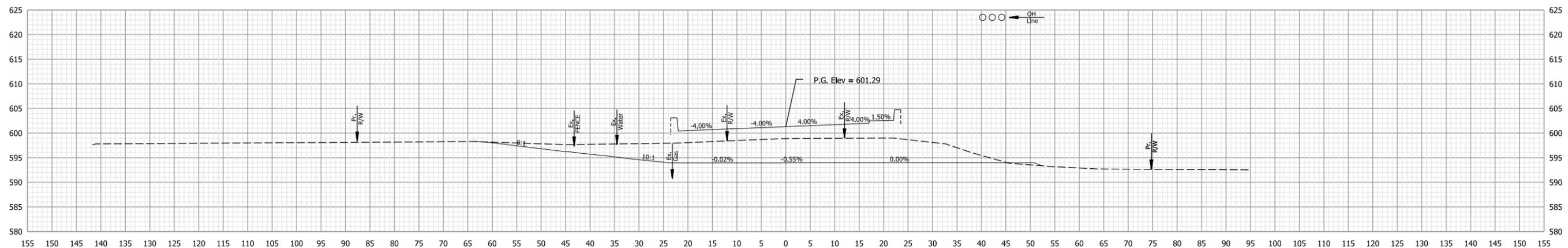
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: MSM	08/26/2022	DRAWN: MSM
CHECKED: EN	08/26/2022	CHECKED: EN

INDIANA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - US-6

HORIZONTAL SCALE	BRIDGE FILE
1"=10'	(6)51-45-10466-B
VERTICAL SCALE	DESIGNATION
	1900012
	SHEETS
	47 of 52
CONTRACT	PROJECT
B-42442	1900012

STA. 75+50 TO STA. 76+00

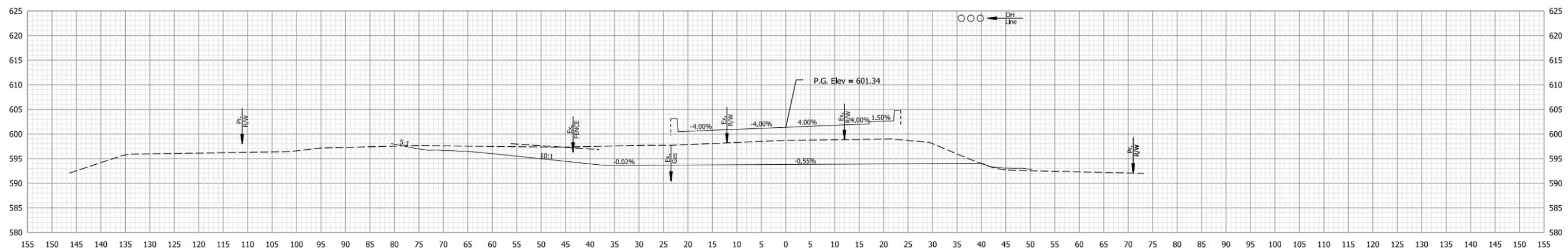


Ac = 0.0 SFT
Vc = 0 CYS

Af = 0.0 SFT
Vf = 0 CYS

Ab = 0.0 SFT
Vb = 0 CYS

PAVING EXCEPTION 77+00



Ac = 0.0 SFT
Vc = 0 CYS

Af = 0.0 SFT
Vf = 0 CYS

Ab = 0.0 SFT
Vb = 0 CYS

PAVING EXCEPTION 76+50

Note to Reviewer: Offset and depth information for the utilities shown will be coordinated throughout project development and the utility verification process.

Pkt: 8/26/2022 7:06:13 PM

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NOT FOR CONSTRUCTION

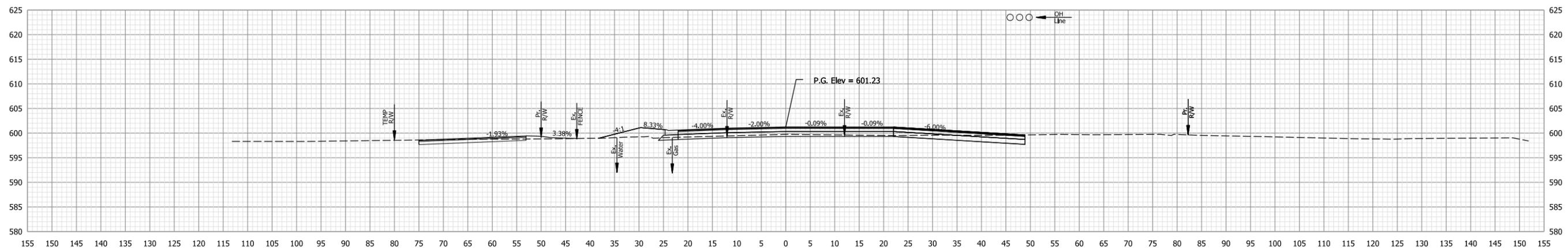
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CHECKED: EN	08/26/2022	CHECKED: EN

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - US-6

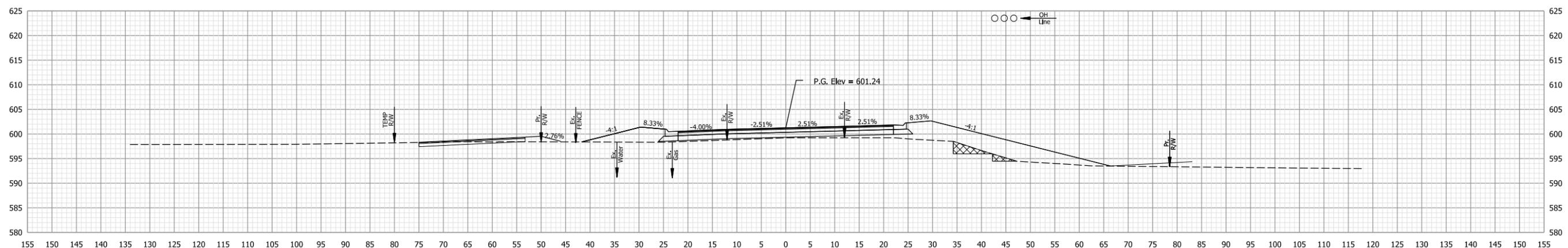
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1"=10'	(6)51-45-10466-B
VERTICAL SCALE	DESIGNATION
	1900012
	SHEETS
	48 of 52
CONTRACT	PROJECT
B-42442	1900012

STA. 76+50 TO STA. 77+00



Ac = 63.8 SFT Af = 0.0 SFT Ab = 0.0 SFT
 Vc = 59 CYS Vf = 158 CYS Vb = 0 CYS

78+00



Ac = 0.0 SFT Af = 170.8 SFT Ab = 13.8 SFT
 Vc = 0 CYS Vf = 158 CYS Vb = 13 CYS

77+50

Note to Reviewer: Offset and depth information for the utilities shown will be coordinated throughout project development and the utility verification process.

Pkt: 8/26/2022 7:06:13 PM

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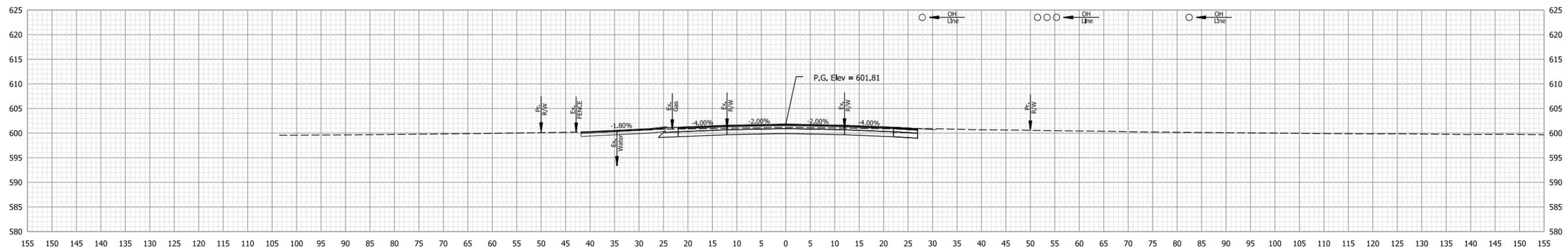
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CHECKED: EN	08/26/2022	CHECKED: EN

INDIANA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - US-6

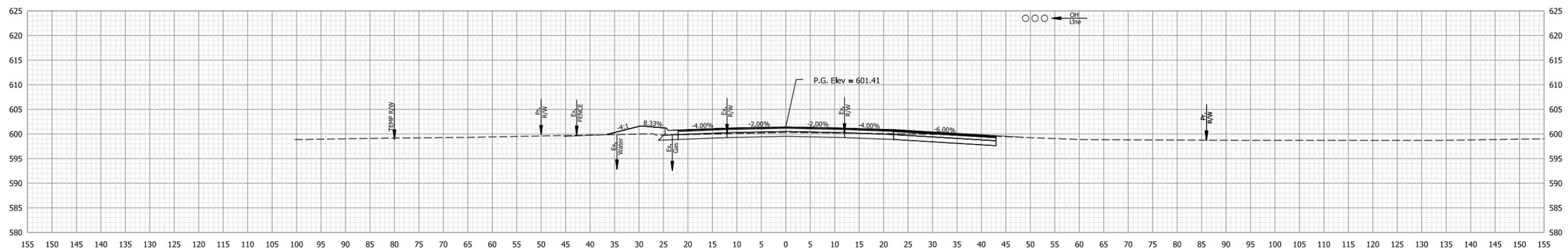
HORIZONTAL SCALE	BRIDGE FILE
1"=10'	(6)51-45-10466-B
VERTICAL SCALE	DESIGNATION
	1900012
	SHEETS
	49 of 52
CONTRACT	PROJECT
B-42442	1900012

STA. 77+50 TO STA. 78+00



Ac = 78.7 SFT Af = 0.0 SFT Ab = 0.0 SFT
 Vc = 138 CYS Vf = 12 CYS Vb = 8 CYS

79+00



Ac = 70.9 SFT Af = 13.4 SFT Ab = 0.0 SFT
 Vc = 125 CYS Vf = 12 CYS Vb = 0 CYS

78+50

Note to Reviewer: Offset and depth information for the utilities shown will be coordinated throughout project development and the utility verification process.

Pht: 8/26/2022 7:06:13 PM

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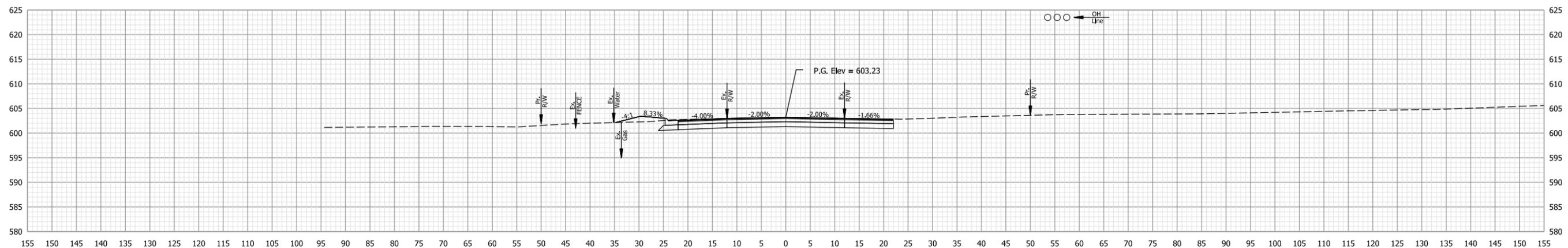
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CHECKED: EN 08/26/2022	CHECKED: EN 08/26/2022	

INDIANA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - US-6

HORIZONTAL SCALE 1"=10'	BRIDGE FILE (6)51-45-10466-B
VERTICAL SCALE	DESIGNATION 1900012
	SHEETS 50 of 52
CONTRACT B-42442	PROJECT 1900012

STA. 78+50 TO STA. 79+00

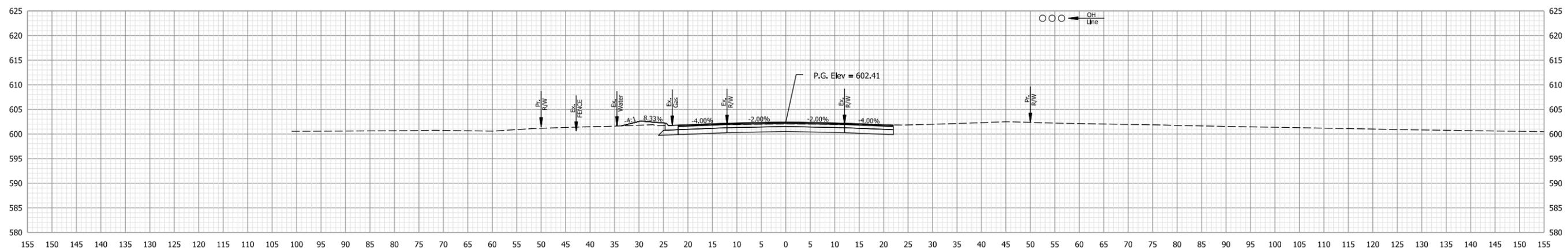


Ac = 82.4 SFT
Vc = 143 CYS

Af = 7.1 SFT
Vf = 11 CYS

Ab = 0.0 SFT
Vb = 0 CYS

80+00



Ac = 71.8 SFT
Vc = 139 CYS

Af = 4.8 SFT
Vf = 4 CYS

Ab = 0.0 SFT
Vb = 0 CYS

79+50

Note to Reviewer: Offset and depth information for the utilities shown will be coordinated throughout project development and the utility verification process.

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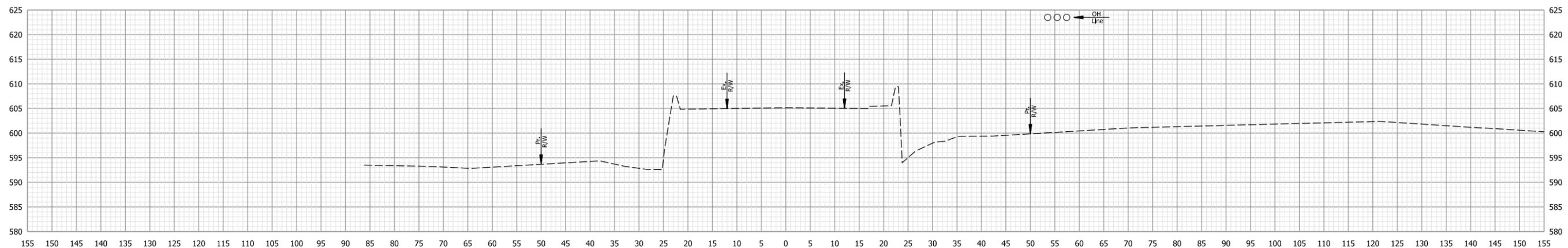
NOT FOR CONSTRUCTION

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DESIGNED: MSM	08/26/2022	DRAWN: MSM
08/26/2022		08/26/2022
CHECKED: EN	08/26/2022	CHECKED: EN
		08/26/2022

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - US-6

HORIZONTAL SCALE	BRIDGE FILE
1"=10'	(6)51-45-10466-B
VERTICAL SCALE	DESIGNATION
	1900012
SHEETS	
51 of 52	
CONTRACT	PROJECT
B-42442	1900012

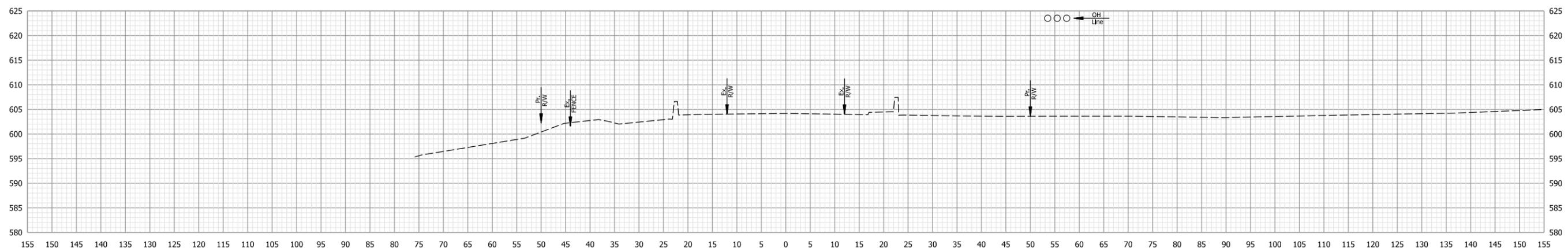


Ac = 0.0 SFT
Vc = 0 CYS

Af = 0.0 SFT
Vf = 0 CYS

Ab = 0.0 SFT
Vb = 0 CYS

81+00



Ac = 0.0 SFT
Vc = 76 CYS

Af = 0.0 SFT
Vf = 7 CYS

Ab = 0.0 SFT
Vb = 0 CYS

80+50

Note to Reviewer: Offset and depth information for the utilities shown will be coordinated throughout project development and the utility verification process.

Pkt: 8/26/2022 7:06:14 PM

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: MSM	08/26/2022	DRAWN: MSM
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INDIANA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - US-6

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VERTICAL SCALE	DESIGNATION
	1900012
SHEETS	
52 of 52	
CONTRACT	PROJECT
B-42442	1900012

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Model: Default

STA. 80+50 TO STA. 81+00

APPENDIX C

Early Coordination



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758-ES
Indianapolis, Indiana 46204

PHONE: (317) 232-5113
FAX: (317) 233-4929

Eric Holcomb, Governor
Joe McGuinness, Commissioner

April 13, 2021

Scott Mason
Project Manager
Indiana Department of Transportation
315 E. Boyd Blvd. 2nd Floor, Traffic Ops Bldg.
LaPorte, IN 46350

Re: Early Coordination Letter, Des. No.: 1900012, Bridge Project at Muck Pocket on US 6/SR 51, 0.84 mile south of I-80/94, LaPorte District, Gary Subdistrict, Lake County, Indiana

Dear Indiana Department of Transportation,

The Indiana Department of Transportation (INDOT), with federal and state funding, intends to proceed with a project involving the aforementioned bridge project in Lake County. This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. **Please use the above designation number and description in your reply.** We will incorporate your comments into a study of the project's environmental impacts.

The project is located on US 6/SR 51, 0.84 mile south of I-80/94 over Muck Pocket in Lake County, Indiana. This section of US 6 is classified as an *Urban Principal Arterial – Other* and is part of the US National Highway System. The existing US 6 approach cross section consists of two 12 feet (ft.) travel lanes, 10 ft. (max) paved shoulders, and 10 ft. usable shoulders. The existing bridge is a 290 ft., 16 ft. spans with 19.7 ft. maximum length reinforced concrete slab on reinforced concrete piles. The bridge is located parallel and adjacent to Deep River and is located within the floodplain of Deep River over an area called Muck Pocket. The need (or deficiency) for this project is due to the existing structure having longitudinal cracking with delamination, spalling, and exposed reinforced steel. Local rain events have shown that the structure is hydraulically insufficient. The purpose of this project is to provide a long lasting structurally and hydraulically sufficient crossing of US 6 over Muck Pocket.

The proposed project is anticipated to replace the existing structure with a cast-in-place concrete slab superstructure on pile bent substructure units. The roadway profile is anticipated to be raised to provide improvements to the hydraulic performance. The raised profile will result in a longer proposed bridged, extending the proposed structure to the north of the existing bridge limits. Longer bridge spans will be provided to minimize the number of substructure units. The project is anticipated to also include new reinforced concrete bridge approaches, bridge railing, and guardrail. This proposed project is expected to require permanent and/or temporary right-of-way. The right-of-way needed is expected to exceed 0.5 acre.

The maintenance of traffic is anticipated to require a full closure with a detour route of approximately 16 miles utilizing US 6, SR 149, and US 20, coordination will be ongoing throughout the early coordination process. Access to local businesses and residents shall be maintained. A local detour route will be coordinated with the City of Lake Station. The project is anticipated to begin construction in 2024.

Land use in the vicinity of the project is primarily urban with commercial properties at the north side of the project, riverine and bottomland adjacent to the bridge, and residential and park at the south side of the project. Hanson Professional Services will perform waters and wetlands determinations to identify water resources that may be present and coordinate the findings with the INDOT Ecology & Permitting Office. This project is anticipated to qualify for the Rangewide Programmatic Agreement for the Indiana bat and Northern Long-eared bat by completing the Information for Planning and Consultation (IPaC). Coordination will occur with the INDOT Cultural Resources Office to evaluate the project area for archaeological and historical resources and for Section 106 compliance. The results of this investigation will be forwarded to the State Historic Preservation Officer for review and concurrence as appropriate.

Please provide your response within thirty (30) calendar days from the date of this letter. However, should you find that an extension to the response time is necessary, a reasonable amount may be granted upon request. If you have any questions regarding this matter, please feel free to contact Jason Rowley P.E, Senior Project Manager, Hanson Professional Services Inc., jrowley@hanson-inc.com, (317) 803-8960, or, Scott Mason, INDOT Project Manager, smason@indot.in.gov, (219) 325-7523. Thank you in advance for your input.

Sincerely,

A handwritten signature in blue ink that reads "Jason Rowley".

Jason Rowley, P.E.
Senior Project Manager
Hanson Professional Services Inc.

Attachments –

Maps/Graphics (Location, Aerial, Topographic, Photographs)

See Appendix B for attachments.

The following agencies received early coordination letters:

<p>Kari Carmany-George Federal Highway Administration Federal Office Building, Room 254 575 North Pennsylvania Street Indianapolis, Indiana 46204 k.carmanygeorge@dot.gov</p>	<p>Indiana Department of Transportation Office of Aviation 100 N. Senate Avenue, Rm. 955 Indianapolis, IN 46204 JCourtade@indot.in.gov</p>
<p>Indiana Geological and Water Survey 611 North Walnut Grove Bloomington, IN 47405 https://igws.indiana.edu/eAssessment</p>	<p>Mr. Paul Leffler, Chief Environmental Resources Department of the Army Chicago District, Corps of Engineers 231 South LaSalle St. Suite 1500 Chicago, IL 60604 chicagorequests@usace.army.mil</p>
<p>Environmental Coordinator Indiana Department of Natural Resources Division of Fish and Wildlife 402 West Washington Street, Rm. W273 Indianapolis, IN 46204 environmentalreview@dnr.in.gov</p>	<p>Melanie Castillo Field Environmental Officer Chicago Regional Office US Department of Housing & Urban Development Metcalfe Fed. Bldg. 77 W. Jackson Blvd. Room 2401 Chicago, IL 60604 Melanie.H.Castillo@hud.gov</p>
<p>Indiana Department of Environmental Management (Automatic website early coordination) https://www.in.gov/idem/5284.htm</p>	<p>Stewart Michels Environmental Section Manager (Supervisor) LaPorte District Indiana Department of Transportation 315 E. Boyd Blvd. Attn: CPM LaPorte, IN 46350 SMichels@indot.in.gov</p>
<p>Scott Mason Project Manager, LaPorte District Indiana Department of Transportation 315 E. Boyd Blvd. 2nd Floor, Traffic Ops Bldg. LaPorte, IN 46350 smason@indot.in.gov</p>	<p>Ty Warner Executive Director Northwestern Indiana Regional Planning Commission 6100 Southport Rd. Portage, IN 46368 twarner@nirpc.org</p>
<p>William Baker Chairman Little Calumet River Basin Development Commission 900 Ridge Rd. Suite H Munster, IN 46321 wbaker@lcrbdc.org</p>	<p>Duane Alverson Lake County Highway Department 110 East Monitor St. Crown Point, IN 46307 alverda@lakecountyin.org</p>
<p>Kyle W. Allen, Sr. Commissioner, 1st District Lake County Board of Commissioners Building "A", 3rd Floor 2293 N. Main Street Crown Point, IN 46307 allenkw@lakecountyin.org</p>	<p>Robert Walker Lake County Emergency Management 2900 W. 93rd Ave. Crown Point, IN 46307 walker@lakecountyin.org</p>
<p>Fred Williams City Council Member, 3rd District Lake Station City Council 1969 Central Ave. Lake Station, IN 46405 fwilliams@lakestation-in.gov</p>	<p>Linda Werner Lake Station Historical Society Inc. 2400 Central Ave Lake Station, IN 46405 linderlee7@aol.com</p>

<p>Bill Carroll Mayor City of Lake Station 1969 Central Ave. Lake Station, IN 46405 kim.frizzell@lakestation-in.gov Attn: Bill Carroll</p>	<p>Adrian Vera Director Lake Station Parks and Recreation Department 2701 Ripley St. Lake Station, IN 46405 avera@lakestation-in.gov</p>
<p>Bob Bronson State and Community Outdoor Recreation Section Indiana Department of Natural Resources – Division of Outdoor Recreation 402 W. Washington St., Room 271 Indianapolis, IN 46204 bbronson@dnr.in.gov</p>	<p>Dr. Chandana Vavilala Health Officer Lake County Health Department 2900W. 93rd Ave. Crown Point, IN 46307 vavilcx@lakecountyin.org</p>

Organization and Project Information

Project ID: 20H0008A
Des. ID: 1900012
Project Title: US 6/SR 51 Bridge Project at Muck Pocket
Name of Organization: Hanson Professional Services Inc.
Requested by: Payton Fischer

Environmental Assessment Report

1. Geological Hazards:
 - High liquefaction potential
 - Floodway
2. Mineral Resources:
 - Bedrock Resource: High Potential
 - Sand and Gravel Resource: Low Potential
3. Active or abandoned mineral resources extraction sites:
 - None documented in the area

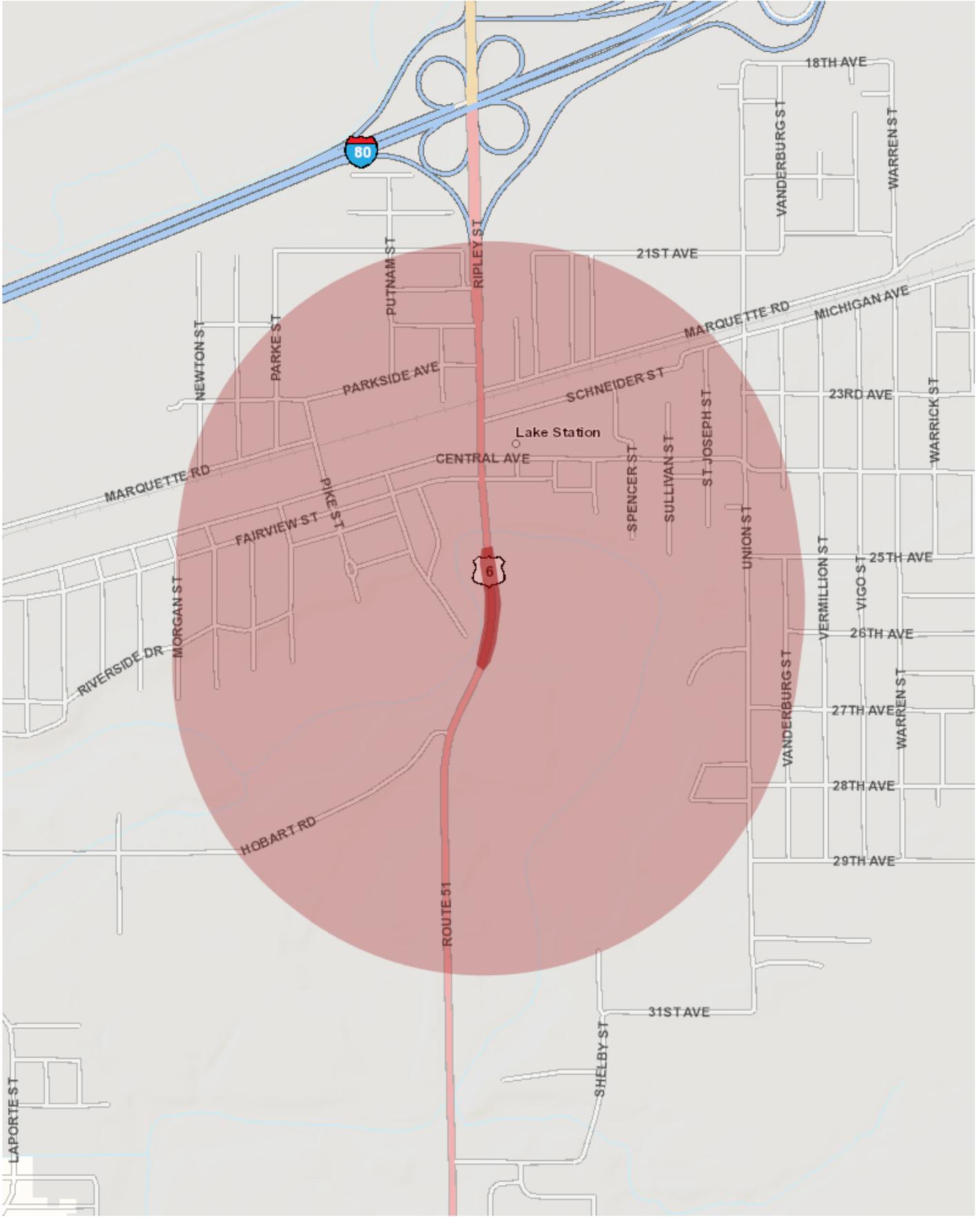
*All map layers from Indiana Map (maps.indiana.edu)

DISCLAIMER:

This document was compiled by Indiana University, Indiana Geological Survey, using data believed to be accurate; however, a degree of error is inherent in all data. This product is distributed "AS-IS" without warranties of any kind, either expressed or implied, including but not limited to warranties of suitability to a particular purpose or use. No attempt has been made in either the design or production of these data and document to define the limits or jurisdiction of any federal, state, or local government. The data used to assemble this document are intended for use only at the published scale of the source data or smaller (see the metadata links below) and are for reference purposes only. They are not to be construed as a legal document or survey instrument. A detailed on-the-ground survey and historical analysis of a single site may differ from these data and this document.

This information was furnished by Indiana Geological Survey
Address: 420 N. Walnut St., Bloomington, IN 47404
Email: IGSEnvir@indiana.edu
Phone: 812 855-7428

Date: April 13, 2021



Metadata:

- https://maps.indiana.edu/metadata/Geology/Seismic_Earthquake_Liquefaction_Potential.html
- https://maps.indiana.edu/metadata/Geology/Industrial_Minerals_Sand_Gravel_Resources.html
- https://maps.indiana.edu/metadata/Hydrology/Floodplains_FIRM.html
- https://maps.indiana.edu/metadata/Geology/Bedrock_Geology.html



Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

100 North Senate Avenue - Indianapolis, IN 46204
(800) 451-6027 - (317) 232-8603 - www.idem.IN.gov

INDOT - LaPorte District

315 E. Boyd Blvd.
LaPorte , IN 46350

Hanson Professional Services Inc.

Jason Rowley
6510 Telecom Dr.
Suite 210
Indianapolis , IN 46278

Date

To Engineers and Consultants Proposing Roadway Construction Projects:

RE: The project is located on US 6, 0.84 mile east of SR 51/I-80/I-94 over Muck Pocket in Lake County, Indiana. This section of US 6 is classified as an Urban Principal Arterial – Other and is part of the US National Highway System. The existing US 6 approach cross section consists of two 12 feet (ft.) travel lanes, 10 ft. (max) paved shoulders, and 10 ft. usable shoulders. The existing bridge is a 290 ft., 16 ft. spans with 19.7 ft. maximum length reinforced concrete slab on reinforced concrete piles. The bridge is located parallel and adjacent to Deep River and is located within the floodplain of Deep River over an area called Muck Pocket. The need (or deficiency) for this project is due to the existing structure having longitudinal cracking with delamination, spalling, and exposed reinforced steel. Local rain events have shown that the structure is hydraulically insufficient. The purpose of this project is to provide a long lasting structurally and hydraulically sufficient crossing of US 6 over Muck Pocket. The proposed project is anticipated to replace the existing structure with a cast-in-place concrete slab superstructure on pile bent substructure units. The roadway profile is anticipated to be raised to provide improvements to the hydraulic performance. The raised profile will result in a longer proposed bridged, extending the proposed structure to the north of the existing bridge limits. Longer bridge spans will be provided to minimize the number of substructure units. The project is anticipated to also include new reinforced concrete bridge approaches, bridge railing, and guardrail. This proposed project is expected to require permanent and/or temporary right-of-way. The right-of-way needed is expected to exceed 0.5 acre. The maintenance of traffic is anticipated to require a full closure with a detour route of approximately 16 miles utilizing US 6, SR 149, and US 20, coordination will be ongoing throughout the early coordination process. Access to local businesses and residents shall be maintained. A local detour route will be coordinated with the City of Lake Station. The project is anticipated to begin construction in 2024.

This letter from the Indiana Department of Environmental Management (IDEM) serves as a standardized response to enquiries inviting IDEM comments on roadway construction, reconstruction, or other improvement projects within existing roadway corridors when the proposed scope of the project is beneath the threshold requiring a formal National Environmental Policy Act-mandated Environmental Assessment or Environmental Impact Statement. As the letter attempts to address all roadway-related environmental topics of potential concern, it is possible that not every topic addressed in the letter will be applicable to your particular roadway project.

For additional information on specific roadway-related topics of interest, please visit the appropriate Web pages cited below, many of which provide contact information for persons within the various program areas who can answer questions not fully addressed in this letter. Also please be mindful that some environmental requirements

may be subject to change and so each person intending to include a copy of this letter in their project documentation packet is advised to download the most recently revised version of the letter; found at: <http://www.in.gov/idem/5283.htm> (<http://www.in.gov/idem/5283.htm>).

To ensure that all environmentally-related issues are adequately addressed, IDEM recommends that you read this letter in its entirety, and consider each of the following issues as you move forward with the planning of your proposed roadway construction, reconstruction, or improvement project:

WATER AND BIOTIC QUALITY

1. Section 404 of the Clean Water Act requires that you obtain a permit from the U.S. Army Corps of Engineers (USACE) before discharging dredged or fill materials into any wetlands or other waters, such as rivers, lakes, streams, and ditches. Other activities regulated include the relocation, channelization, widening, or other such alteration of a stream, and the mechanical clearing (use of heavy construction equipment) of wetlands. Thus, as a project owner or sponsor, it is your responsibility to ensure that no wetlands are disturbed without the proper permit. Although you may initially refer to the U.S. Fish and Wildlife Service National Wetland Inventory maps as a means of identifying potential areas of concern, please be mindful that those maps do not depict jurisdictional wetlands regulated by the USACE or the Department of Environmental Management. A valid jurisdictional wetlands determination can only be made by the USACE, using the 1987 Wetland Delineation Manual.

USACE recommends that you have a consultant check to determine whether your project will abut, or lie within, a wetland area. To view a list of consultants that have requested to be included on a list posted by the USACE on their Web site, see USACE Permits and Public Notices (<http://www.lrl.usace.army.mil/orf/default.asp>) (<http://www.lrl.usace.army.mil/orf/default.asp>) and then click on "Information" from the menu on the right-hand side of that page. Their "Consultant List" is the fourth entry down on the "Information" page. Please note that the USACE posts all consultants that request to appear on the list, and that inclusion of any particular consultant on the list does not represent an endorsement of that consultant by the USACE, or by IDEM.

Much of northern Indiana (Newton, Lake, Porter, LaPorte, St. Joseph, Elkhart, LaGrange, Steuben, and Dekalb counties; large portions of Jasper, Starke, Marshall, Noble, Allen, and Adams counties; and lesser portions of Benton, White, Pulaski, Kosciusko, and Wells counties) is served by the USACE District Office in Detroit (313-226-6812). The central and southern portions of the state (large portions of Benton, White, Pulaski, Kosciusko, and Wells counties; smaller portions of Jasper, Starke, Marshall, Noble, Allen, and Adams counties; and all other Indiana counties located in north-central, central, and southern Indiana) are served by the USACE Louisville District Office (502-315-6733).

Additional information on contacting these U.S. Army Corps of Engineers (USACE) District Offices, government agencies with jurisdiction over wetlands, and other water quality issues, can be found at <http://www.in.gov/idem/4396.htm> (<http://www.in.gov/idem/4396.htm>). IDEM recommends that impacts to wetlands and other water resources be avoided to the fullest extent.

2. In the event a Section 404 wetlands permit is required from the USACE, you also must obtain a Section 401 Water Quality Certification from the IDEM Office of Water Quality Wetlands Program. To learn more about the Wetlands Program, visit: <http://www.in.gov/idem/4384.htm> (<http://www.in.gov/idem/4384.htm>).
3. If the USACE determines that a wetland or other water body is isolated and not subject to Clean Water Act regulation, it is still regulated by the state of Indiana. A State Isolated Wetland permit from IDEM's Office of Water Quality (OWQ) is required for any activity that results in the discharge of dredged or fill materials into

isolated wetlands. To learn more about isolated wetlands, contact the OWQ Wetlands Program at 317-233-8488.

4. If your project will involve over a 0.5 acre of wetland impact, stream relocation, or other large-scale alterations to water bodies such as the creation of a dam or a water diversion, you should seek additional input from the OWQ Wetlands Program staff. Consult the Web at: <http://www.in.gov/idem/4384.htm> (<http://www.in.gov/idem/4384.htm>) for the appropriate staff contact to further discuss your project.
5. Work within the one-hundred year floodway of a given water body is regulated by the Department of Natural Resources, Division of Water. The Division issues permits for activities regulated under the follow statutes:
 - IC 14-26-2 Lakes Preservation Act 312 IAC 11
 - IC 14-26-5 Lowering of Ten Acre Lakes Act No related code
 - IC 14-28-1 Flood Control Act 310 IAC 6-1
 - IC 14-29-1 Navigable Waterways Act 312 IAC 6
 - IC 14-29-3 Sand and Gravel Permits Act 312 IAC 6
 - IC 14-29-4 Construction of Channels Act No related code

For information on these Indiana (statutory) Code and Indiana Administrative Code citations, see the DNR Web site at: <http://www.in.gov/dnr/water/9451.htm> (<http://www.in.gov/dnr/water/9451.htm>) . Contact the DNR Division of Water at 317-232-4160 for further information.

The physical disturbance of the stream and riparian vegetation, especially large trees overhanging any affected water bodies should be limited to only that which is absolutely necessary to complete the project. The shade provided by the large overhanging trees helps maintain proper stream temperatures and dissolved oxygen for aquatic life.

6. For projects involving construction activity (which includes clearing, grading, excavation and other land disturbing activities) that result in the disturbance of one (1), or more, acres of total land area, contact the Office of Water Quality – Watershed Planning Branch (317/233-1864) regarding the need for of a Rule 5 Storm Water Runoff Permit. Visit the following Web page
 - <http://www.in.gov/idem/4902.htm> (<http://www.in.gov/idem/4902.htm>)

To obtain, and operate under, a Rule 5 permit you will first need to develop a Construction Plan (<http://www.in.gov/idem/4917.htm#constreq> (<http://www.in.gov/idem/4917.htm#constreq>)), and as described in 327 IAC 15-5-6.5 (<http://www.in.gov/legislative/iac/T03270/A00150> [PDF] (<http://www.in.gov/legislative/iac/T03270/A00150.PDF>), pages 16 through 19). Before you may apply for a Rule 5 Permit, or begin construction, you must submit your Construction Plan to your county Soil and Water Conservation District (SWCD) (<http://www.in.gov/isda/soil/contacts/map.html> (<http://www.in.gov/isda/soil/contacts/map.html>)).

Upon receipt of the construction plan, personnel of the SWCD or the Indiana Department of Environmental Management will review the plan to determine if it meets the requirements of 327 IAC 15-5. Plans that are deemed deficient will require re-submittal. If the plan is sufficient you will be notified and instructed to submit the verification to IDEM as part of the Rule 5 Notice of Intent (NOI) submittal. Once construction begins, staff of the SWCD or Indiana Department of Environmental Management will perform inspections of activities at the site for compliance with the regulation.

Please be mindful that approximately 149 Municipal Separate Storm Sewer System (MS4) areas are now being established by various local governmental entities throughout the state as part of the implementation of Phase II federal storm water requirements. All of these MS4 areas will eventually take responsibility for Construction Plan review, inspection, and enforcement. As these MS4 areas obtain program approval from

IDEM, they will be added to a list of MS4 areas posted on the IDEM Website at: <http://www.in.gov/idem/4900.htm> (<http://www.in.gov/idem/4900.htm>).

If your project is located in an IDEM-approved MS4 area, please contact the local MS4 program about meeting their storm water requirements. Once the MS4 approves the plan, the NOI can be submitted to IDEM.

Regardless of the size of your project, or which agency you work with to meet storm water requirements, IDEM recommends that appropriate structures and techniques be utilized both during the construction phase, and after completion of the project, to minimize the impacts associated with storm water runoff. The use of appropriate planning and site development and appropriate storm water quality measures are recommended to prevent soil from leaving the construction site during active land disturbance and for post construction water quality concerns. Information and assistance regarding storm water related to construction activities are available from the Soil and Water Conservation District (SWCD) offices in each county or from IDEM.

7. For projects involving impacts to fish and botanical resources, contact the Department of Natural Resources - Division of Fish and Wildlife (317/232-4080) for addition project input.
8. For projects involving water main construction, water main extensions, and new public water supplies, contact the Office of Water Quality - Drinking Water Branch (317-308-3299) regarding the need for permits.
9. For projects involving effluent discharges to waters of the State of Indiana , contact the Office of Water Quality - Permits Branch (317-233-0468) regarding the need for a National Pollutant Discharge Elimination System (NPDES) permit.
10. For projects involving the construction of wastewater facilities and sewer lines, contact the Office of Water Quality - Permits Branch (317-232-8675) regarding the need for permits.

AIR QUALITY

The above-noted project should be designed to minimize any impact on ambient air quality in, or near, the project area. The project must comply with all federal and state air pollution regulations. Consideration should be given to the following:

1. Regarding open burning, and disposing of organic debris generated by land clearing activities; some types of open burning are allowed (<http://www.in.gov/idem/4148.htm> (<http://www.in.gov/idem/4148.htm>)) under specific conditions. You also can seek an open burning variance from IDEM.

However, IDEM generally recommends that you take vegetative wastes to a registered yard waste composting facility or that the waste be chipped or shredded with composting on site (you must register with IDEM if more than 2,000 pounds is to be composted; contact 317/232-0066). The finished compost can then be used as a mulch or soil amendment. You also may bury any vegetative wastes (such as leaves, twigs, branches, limbs, tree trunks and stumps) onsite, although burying large quantities of such material can lead to subsidence problems, later on.

Reasonable precautions must be taken to minimize fugitive dust emissions from construction and demolition activities. For example, wetting the area with water, constructing wind barriers, or treating dusty areas with chemical stabilizers (such as calcium chloride or several other commercial products). Dirt tracked onto paved roads from unpaved areas should be minimized.

Additionally, if construction or demolition is conducted in a wooded area where blackbirds have roosted or abandoned buildings or building sections in which pigeons or bats have roosted for 3-5 years precautionary measures should be taken to avoid an outbreak of histoplasmosis. This disease is caused by the fungus *Histoplasma capsulatum*, which stems from bird or bat droppings that have accumulated in one area for 3-5 years. The spores from this fungus become airborne when the area is disturbed and can cause infections over an entire community downwind of the site. The area should be wetted down prior to cleanup or demolition of the project site. For more detailed information on histoplasmosis prevention and control, please contact the Acute Disease Control Division of the Indiana State Department of Health at (317) 233-7272.

2. The U.S. EPA and the Surgeon General recommend that people not have long-term exposure to radon at levels above 4 pCi/L. (For a county-by-county map of predicted radon levels in Indiana, visit: <http://www.in.gov/idem/4145.htm> (<http://www.in.gov/idem/4145.htm>).)

The U.S. EPA further recommends that all homes (and apartments within three stories of ground level) be tested for radon. If in-home radon levels are determined to be 4 pCi/L, or higher, EPA recommends a follow-up test. If the second test confirms that radon levels are 4 pCi/L, or higher, EPA recommends the installation of radon-reduction measures. (For a list of qualified radon testers and radon mitigation (or reduction) specialists visit: http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf (http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf)). It also is recommended that radon reduction measures be built into all new homes, particularly in areas like Indiana that have moderate to high predicted radon levels.

To learn more about radon, radon risks, and ways to reduce exposure visit:

<http://www.in.gov/isdh/regsvcs/radhealth/radon.htm> (<http://www.in.gov/isdh/regsvcs/radhealth/radon.htm>), <http://www.in.gov/idem/4145.htm> (<http://www.in.gov/idem/4145.htm>), or <http://www.epa.gov/radon/index.html> (<http://www.epa.gov/radon/index.html>).

3. With respect to asbestos removal: all facilities slated for renovation or demolition (except residential buildings that have (4) four or fewer dwelling units and which will not be used for commercial purposes) must be inspected by an Indiana-licensed asbestos inspector prior to the commencement of any renovation or demolition activities. If regulated asbestos-containing material (RACM) that may become airborne is found, any subsequent demolition, renovation, or asbestos removal activities must be performed in accordance with the proper notification and emission control requirements.

If no asbestos is found where a renovation activity will occur, or if the renovation involves removal of less than 260 linear feet of RACM off of pipes, less than 160 square feet of RACM off of other facility components, or less than 35 cubic feet of RACM off of all facility components, the owner or operator of the project does not need to notify IDEM before beginning the renovation activity.

For questions on asbestos demolition and renovation activities, you can also call IDEM's Lead/Asbestos section at 1-888-574-8150.

However, in all cases where a demolition activity will occur (even if no asbestos is found), the owner or operator must still notify IDEM 10 working days prior to the demolition, using the form found at <http://www.in.gov/icpr/webfile/formsdiv/44593.pdf> (<http://www.in.gov/icpr/webfile/formsdiv/44593.pdf>).

Anyone submitting a renovation/demolition notification form will be billed a notification fee based upon the amount of friable asbestos containing material to be removed or demolished. Projects that involve the removal of more than 2,600 linear feet of friable asbestos containing materials on pipes, or 1,600 square feet or 400 cubic feet of friable asbestos containing material on other facility components, will be billed a fee

of \$150 per project; projects below these amounts will be billed a fee of \$50 per project. All notification remitters will be billed on a quarterly basis.

For more information about IDEM policy regarding asbestos removal and disposal, visit:
<http://www.in.gov/idem/4983.htm> (<http://www.in.gov/idem/4983.htm>).

4. With respect to lead-based paint removal: IDEM encourages all efforts to minimize human exposure to lead-based paint chips and dust. IDEM is particularly concerned that young children exposed to lead can suffer from learning disabilities. Although lead-based paint abatement efforts are not mandatory, any abatement that is conducted within housing built before January 1, 1978, or a child-occupied facility is required to comply with all lead-based paint work practice standards, licensing and notification requirements. For more information about lead-based paint removal visit: <http://www.in.gov/isdh/19131.htm> (<http://www.in.gov/isdh/19131.htm>).
5. Ensure that asphalt paving plants are permitted and operate properly. The use of cutback asphalt, or asphalt emulsion containing more than seven percent (7%) oil distillate, is prohibited during the months April through October. See 326 IAC 8-5-2, Asphalt Paving Rule (<http://www.ai.org/legislative/iac/T03260/A00080.PDF> (<http://www.ai.org/legislative/iac/T03260/A00080.PDF>)).
6. If your project involves the construction of a new source of air emissions or the modification of an existing source of air emissions or air pollution control equipment, it will need to be reviewed by the IDEM Office of Air Quality (OAQ). A registration or permit may be required under 326 IAC 2 (View at: www.ai.org/legislative/iac/t03260/a00020.pdf (<http://www.ai.org/legislative/iac/t03260/a00020.pdf>)). New sources that use or emit hazardous air pollutants may be subject to Section 112 of the Clean Air Act and corresponding state air regulations governing hazardous air pollutants.
7. For more information on air permits visit: <http://www.in.gov/idem/4223.htm> (<http://www.in.gov/idem/4223.htm>), or to initiate the IDEM air permitting process, please contact the Office of Air Quality Permit Reviewer of the Day at (317) 233-0178 or OAMPROD atdem.state.in.us.

LAND QUALITY

In order to maintain compliance with all applicable laws regarding contamination and/or proper waste disposal, IDEM recommends that:

1. If the site is found to contain any areas used to dispose of solid or hazardous waste, you need to contact the Office of Land Quality (OLQ) at 317-308-3103.
2. All solid wastes generated by the project, or removed from the project site, need to be taken to a properly permitted solid waste processing or disposal facility. For more information, visit <http://www.in.gov/idem/4998.htm> (<http://www.in.gov/idem/4998.htm>).
3. If any contaminated soils are discovered during this project, they may be subject to disposal as hazardous waste. Please contact the OLQ at 317-308-3103 to obtain information on proper disposal procedures.
4. If PCBs are found at this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding management of any PCB wastes from this site.
5. If there are any asbestos disposal issues related to this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding the management of asbestos wastes (Asbestos removal is addressed above, under Air Quality).

6. If the project involves the installation or removal of an underground storage tank, or involves contamination from an underground storage tank, you must contact the IDEM Underground Storage Tank program at 317/308-3039. See: <http://www.in.gov/idem/4999.htm> (<http://www.in.gov/idem/4999.htm>).

FINAL REMARKS

Should you need to obtain any environmental permits in association with this proposed project, please be mindful that IC 13-15-8 requires that you notify all adjoining property owners and/or occupants within ten days your submittal of each permit application. However, if you are seeking multiple permits, you can still meet the notification requirement with a single notice if all required permit applications are submitted with the same ten day period.

Should the scope of the proposed project be expanded to the extent that a National Environmental Policy Act Environmental Assessment (EA) or Environmental Impact Statement (EIS) is required, IDEM will actively participate in any early interagency coordination review of the project.

Meanwhile, please note that this letter does not constitute a permit, license, endorsement or any other form of approval on the part of the Indiana Department of Environmental Management regarding any project for which a copy of this letter is used. Also note that it is the responsibility of the project engineer or consultant using this letter to ensure that the most current draft of this document, which is located at <http://www.in.gov/idem/5284.htm> (<http://www.in.gov/idem/5284.htm>), is used.

Signature(s) of the Applicant

I acknowledge that the following proposed roadway project will be financed in part, or in whole, by public monies.

Project Description

The project is located on US 6, 0.84 mile east of SR 51/I-80/I-94 over Muck Pocket in Lake County, Indiana. This section of US 6 is classified as an Urban Principal Arterial – Other and is part of the US National Highway System. The existing US 6 approach cross section consists of two 12 feet (ft.) travel lanes, 10 ft. (max) paved shoulders, and 10 ft. usable shoulders. The existing bridge is a 290 ft., 16 ft. spans with 19.7 ft. maximum length reinforced concrete slab on reinforced concrete piles. The bridge is located parallel and adjacent to Deep River and is located within the floodplain of Deep River over an area called Muck Pocket. The need (or deficiency) for this project is due to the existing structure having longitudinal cracking with delamination, spalling, and exposed reinforced steel. Local rain events have shown that the structure is hydraulically insufficient. The purpose of this project is to provide a long lasting structurally and hydraulically sufficient crossing of US 6 over Muck Pocket. The proposed project is anticipated to replace the existing structure with a cast-in-place concrete slab superstructure on pile bent substructure units. The roadway profile is anticipated to be raised to provide improvements to the hydraulic performance. The raised profile will result in a longer proposed bridged, extending the proposed structure to the north of the existing bridge limits. Longer bridge spans will be provided to minimize the number of substructure units. The project is anticipated to also include new reinforced concrete bridge approaches, bridge railing, and guardrail. This proposed project is expected to require permanent and/or temporary right-of-way. The right-of-way needed is expected to exceed 0.5 acre. The maintenance of traffic is anticipated to require a full closure with a detour route of approximately 16 miles utilizing US 6, SR 149, and US 20, coordination will be ongoing throughout the early coordination process. Access to local businesses and residents shall be maintained. A local detour route will be coordinated with the City of Lake Station. The project is anticipated to begin construction in 2024.

With my signature, I do hereby affirm that I have read the letter from the Indiana Department of Environment that appears directly above. In addition, I understand that in order to complete that project in which I am interested, with a minimum of impact to the environment, I must consider all the issues addressed in the aforementioned letter, and further, that I must obtain any required permits.

Date: 4/14/2021

Signature of the INDOT Scott Mason
Project Engineer or Other Responsible Agent _____

Date: 4/14/2021

Signature of the Jason Rowley
For Hire Consultant _____

Jason Rowley

State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife
Early Coordination/Environmental Assessment

DNR #: ER-23638

Request Received: April 13, 2021

Requestor: Hanson Professional Services Inc.
Jason Rowley
7820 Innovation Boulevard, Suite 200
Indianapolis, IN 46278

Project: US 6/SR 51 bridge replacement over Muck Pocket (adjacent to Deep River), 0.84 mile south of I-80/94, Lake Station; Des #1900012

County/Site info: Lake

The Indiana Department of Natural Resources has reviewed the above referenced project per your request. Our agency offers the following comments for your information and in accordance with the National Environmental Policy Act of 1969.

If our agency has regulatory jurisdiction over the project, the recommendations contained in this letter may become requirements of any permit issued. If we do not have permitting authority, all recommendations are voluntary.

*NOTE: This project is within the Lake Michigan Coastal Program's boundary; therefore, it may be subject to Federal Consistency (FC) review. Please go to <http://www.in.gov/dnr/lakemich/files/20070214-IR-312070085NRA.xml.pdf> (Section III, pages 8-16) to see the federal activities that require a project to go through the FC process which is outlined at <http://www.in.gov/dnr/lakemich/6041.htm>.

Regulatory Assessment: This proposal will require the formal approval for construction in a floodway under the Flood Control Act, IC 14-28-1. Please submit a copy of this letter with the permit application.

Natural Heritage Database: The Natural Heritage Program's data have been checked. A marsh natural community is located southwest of the project area. The Division of Nature Preserves does not anticipate any impacts to the marsh as a result of this project. Also, the state endangered Blanding's Turtle (*Emydoidea blandingii*) has been documented within 1/2 mile of the project area.

Fish & Wildlife Comments: Avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible, and compensate for impacts. The following are recommendations that address potential impacts identified in the proposed project area:

1) Blanding's Turtle:

To minimize impacts to the Blanding's Turtle, an entrenched silt fence should be installed along the border of the work area on the east side of the bridge and along the east side of the road just north of the bridge, where feasible, to prevent Blanding's turtles from entering the area.

2) Wildlife Crossings:

Maintaining or improving fish and wildlife passage at existing or proposed crossing locations is a priority for the Division of Fish & Wildlife (DFW) to reduce wildlife mortality along roadways. The DFW has outlined different requirements for different types of crossing structure impacts. For brand new crossings in areas that currently do not have a crossing, the new structure must accommodate white-tailed deer passage where appropriate. Minimum structure dimensions for white-tailed deer passage are 20 feet of width clearance (overall size of the structure span) and 8 feet of height clearance measured from the OHWM to the low chord elevation and where deer passage is

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provided. For crossing replacements, the new structure must include wildlife passage appropriate for the type of replacement structure being proposed. If the replacement structure is sized to accommodate white-tailed deer passage then it should be included in the design of the new structure. If white-tailed deer passage is not possible with the existing structure, deer passage still needs to be considered in the design and at minimum the bank lines must be restored within structures to allow for smaller wildlife passage above the ordinary high water mark. All wildlife passage designs must include a smooth level pathway a minimum of 1-2 feet in width composed of natural substrate (soil, sand, gravel, etc.) or compacted aggregate fill over riprap (#2, #53, #73, etc.) tied into existing elevations both upstream and downstream. The stream crossing repairs or modifications, and any bank stabilization under or around the structure, must not create conditions that are less favorable for wildlife passage when compared to existing conditions. Upgrading wildlife passage for rehabilitated/modified structures is encouraged whenever possible to improve wildlife/vehicle safety.

There are a number of techniques and materials for incorporating wildlife passage into the design of a crossing structure. Coordination with a Regional Environmental Biologist to address wildlife passage issues before submitting a permit application (if required) is encouraged to avoid delays in the permitting process. The following links are good resources to consider in the design of stream crossing structures to maintain fish and wildlife passage: <http://www.fs.fed.us/wildlifecrossings/library/>, https://roadecology.ucdavis.edu/files/content/projects/DOT-FHWA_Wildlife_Crossing_Structures_Handbook.pdf, https://www.fs.fed.us/biology/nsaec/fishxing/aop_pdfs.html, <https://www.fhwa.dot.gov/engineering/hydraulics/pubs/11008/hif11008.pdf>.

3) Bank Stabilization:

Establishing vegetation along the banks is critical for stabilization and erosion control. In addition to vegetation, some other form of bank stabilization may be needed. While hard armoring alone (e.g. riprap or glacial stone) may be needed in certain instances, soft armoring and bioengineering techniques should be considered first. In many instances, one or more methods are necessary to increase the likelihood of vegetation establishment. Combining vegetation with most bank stabilization methods can provide additional bank protection and help reduce impacts upon fish and wildlife. Information about bioengineering techniques can be found at <http://www.in.gov/legislative/iac/20120404-IR-312120154NRA.xml.pdf>. Also, the following is a USDA/NRCS document that outlines many different bioengineering techniques for streambank stabilization: <http://directives.sc.egov.usda.gov/17553.wba>.

Riprap must not be placed in the active thalweg channel or placed in the streambed in a manner that precludes fish or aquatic organism passage (riprap must not be placed above the existing streambed elevation). Riprap may be used only at the toe of the sideslopes up to the ordinary high water mark (OHWM). The banks above the OHWM must be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to Northern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion.

4) Riparian Habitat:

We recommend a mitigation plan be developed (and submitted with the permit application) for any unavoidable habitat impacts that will occur. The DNR's Habitat Mitigation Guidelines (and plant lists) can be found online at: <http://iac.iga.in.gov/iac/20200527-IR-312200284NRA.xml.pdf>.

Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to non-wetland forest

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under one (1) acre in an urban setting should be mitigated by planting five trees, at least 2 inches in diameter-at-breast height (dbh), for each tree which is removed that is 10" dbh or greater (5:1 mitigation based on the number of large trees) or by using the 1:1 replacement ratio based on area depending on the type of habitat impacted (individual canopy tree removal in an urban streetscape or park-like environment versus removal of habitat supporting a tree canopy, woody understory, and herbaceous layer). Impacts under 0.10 acre in an urban area may still involve the replacement of large diameter trees but typically do not require any additional mitigation or additional plantings beyond seeding and stabilizing disturbed areas. There are exceptions for high quality habitat sites however.

5) Wetland Habitat:

Due to the presence or potential presence of wetland habitat on site, we recommend contacting and coordinating with the Indiana Department of Environmental Management (IDEM) 401 program and also the US Army Corps of Engineers (USACE) 404 program. Impacts to wetland habitat should be mitigated at the appropriate ratio according to the 1991 INDOT/IDNR/USFWS Memorandum of Understanding.

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:

1. Revegetate all bare and disturbed areas within the project area using a mixture of grasses (excluding all varieties of tall fescue), sedges, wildflowers, shrubs, and trees native to Northern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion.
2. Minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush.
3. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.
4. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
5. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure.
6. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumpharounds.
7. Operate equipment used to replace the bridge from the existing roadway.
8. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
9. Do not use broken concrete as riprap.
10. Underlay the riprap with a bedding layer of well graded aggregate or a geotextile to prevent piping of soil underneath the riprap.
11. Minimize the movement of resuspended bottom sediment from the immediate project area.
12. Do not deposit or allow demolition/construction materials or debris to fall or otherwise enter the waterway.
13. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
14. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.
15. Do not excavate or place fill in any riparian wetland.

THIS IS NOT A PERMIT

State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife
Early Coordination/Environmental Assessment

Contact Staff:

Christie L. Stanifer, Environ. Coordinator, Fish & Wildlife
Our agency appreciates this opportunity to be of service. Please contact the above staff member at (317) 232-4080 if we can be of further assistance.

Christie L. Stanifer

Date: May 12, 2021

Christie L. Stanifer
Environ. Coordinator
Division of Fish and Wildlife

Payton Fischer

From: Michels, Stewart <SMichels@indot.IN.gov>
Sent: Wednesday, April 14, 2021 9:53 AM
To: Payton Fischer
Subject: RE: Des No. 1900012 US 6/SR 51 Bridge Project at Muck Pocket – INDOT Project

EXTERNAL SENDER STOP.THINK.QUESTION If this is unexpected, verify before you click links or open attachments.

Payton,

Thank you for providing a copy of the early coordination letter for Des 1900012 to the LaPorte District Environmental Services. We do not have any comment at this time. Thank you, again, for contacting us.

Regards,
Stew

From: Payton Fischer <pfischer@hanson-inc.com>
Sent: Tuesday, April 13, 2021 11:23 AM
To: Michels, Stewart <SMichels@indot.IN.gov>
Cc: Tamra Reece <TReece@hanson-inc.com>
Subject: Des No. 1900012 US 6/SR 51 Bridge Project at Muck Pocket – INDOT Project

****** This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. ******

Hello,

This is Payton Fischer with Hanson Professional Services Inc. and we are working on the INDOT Project Des. No. 1900012, US 6/SR 51 Bridge Project at Muck Pocket. Please take a moment and review the enclosed early coordination documents.

Respectfully,

Payton Fischer | *Environmental Specialist*



[Hanson Professional Services Inc.](#) | 6510 Telecom Dr. Ste. 210 | Indianapolis, IN 46278
w 317-293-9024 | c 574-298-2359 | [Facebook](#) | [Twitter](#) | [LinkedIn](#)

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Mail delivered by Hanson Professional Services Inc. mail system.

Payton Fischer

From: Hurst, Allen A <AHurst@dnr.IN.gov>
Sent: Tuesday, April 20, 2021 5:09 PM
To: Payton Fischer
Cc: Bronson, Bob
Subject: RE: Des No. 1900012 US 6/SR 51 Bridge Project at Muck Pocket – INDOT Project
Attachments: ECL_DesNo1900012.pdf

EXTERNAL SENDER STOP.THINK.QUESTION If this is unexpected, verify before you click links or open attachments.

Designation #: 1900012

Description: Bridge Project at Muck Pocket on US 6/SR 51, 0.84 mile south of I-80/94, LaPorte District, Gary Subdistrict, Lake County, Indiana

The project as submitted will not impact a LWCF site or a Designated Natural, Scenic, or Recreational River. Should the location or scope of the project change as to negatively impact outdoor recreation at the nearby Riverview Community Park, the applicant or agent will need to contact DNR, Outdoor Recreation branch at 317-232-4075 or bbronson@dnr.in.gov.

Thank you,

ALLEN HURST
TRAILS COORDINATOR
DIVISION OF STATE PARKS
DEPARTMENT OF NATURAL RESOURCES | DNR.IN.GOV
402 W. WASHINGTON ST. ROOM W298, INDIANAPOLIS, IN 46204
P: (317)232-4070 | AHURST@DNR.IN.GOV

* Please let us know about the quality of our service by taking this brief [customer survey](#).

From: Bronson, Bob <bbronson@dnr.IN.gov>
Sent: Tuesday, April 13, 2021 2:44 PM
To: Hurst, Allen A <AHurst@dnr.IN.gov>
Subject: FW: Des No. 1900012 US 6/SR 51 Bridge Project at Muck Pocket – INDOT Project

Please review, THANKS bob

From: Payton Fischer <pfischer@hanson-inc.com>
Sent: Tuesday, April 13, 2021 12:47 PM
To: Bronson, Bob <bbronson@dnr.IN.gov>
Cc: Tamra Reece <TReece@hanson-inc.com>
Subject: Des No. 1900012 US 6/SR 51 Bridge Project at Muck Pocket – INDOT Project

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Hello,

This is Payton Fischer with Hanson Professional Services Inc. and we are working on the INDOT Project Des. No. 1900012, US 6/SR 51 Bridge Project at Muck Pocket. Please take a moment and review the enclosed early coordination documents.

Respectfully,



Payton Fischer | *Environmental Specialist*

[Hanson Professional Services Inc.](#) | 6510 Telecom Dr. Ste. 210 | Indianapolis, IN 46278
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Payton Fischer

From: Hurst, Allen A <AHurst@dnr.IN.gov>
Sent: Thursday, January 27, 2022 4:05 PM
To: Tamra Reece; bbronsons@ndr.in.gov
Cc: Jeff Bushur; Payton Fischer
Subject: RE: Des 1900012 US 6 Muck Pocket Bridge Replacement Project

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Des. No.: 1900012

Description: Bridge Project at Muck Pocket on US 6/SR 51, 0.84 mile south of I-80/94, LaPorte District, Gary Subdistrict, Lake County, Indiana

Thank you for checking back in. The project as newly submitted still is in the clear from a LWCF standpoint.

Should there be any future changes to the location or scope of the project as to negatively impact outdoor recreation at the nearby Riverview Community Park, the applicant or agent will need to contact DNR, Outdoor Recreation branch at 317-232-4075 or bbranson@dnr.in.gov.

Allen Hurst, Trails Coordinator

IDNR Division of State Parks

402 W. Washington Room W298, Indianapolis, IN 46204

OFFICE: 317-232-4070 ahurst@dnr.in.gov

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From: Tamra Reece <TReece@hanson-inc.com>
Sent: Thursday, January 27, 2022 1:47 PM
To: bbronsons@ndr.in.gov; Hurst, Allen A <AHurst@dnr.IN.gov>
Cc: Jeff Bushur <JBushur@hanson-inc.com>; Payton Fischer <pfischer@hanson-inc.com>
Subject: Des 1900012 US 6 Muck Pocket Bridge Replacement Project

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Hello:

Please see the attached updated coordination letter, which includes a copy of your original response dated April 20, 2021, and the updated preliminary right-of-way information along with a set of plans for your review. You have received

this information due to design changes that have taken place over the course of the design process. Please let us know if the updated preliminary plans would change your impact assessment from last April. If additional coordination or information is needed, please do not hesitate to contact me.

Thanks



Tamra L. Reece | *Environmental Scientist*

[Hanson Professional Services Inc.](#) | 6510 Telecom Drive, Suite 210, | Indianapolis, IN 46278

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Payton Fischer

From: Courtade, Julian <JCourtade@indot.IN.gov>
Sent: Wednesday, April 14, 2021 6:40 AM
To: Payton Fischer
Subject: RE: Des No. 1900012 US 6/SR 51 Bridge Project at Muck Pocket – INDOT Project

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Payton –

I reviewed the Early Coordination Letter and found no issues with any surrounding airspace or public-use airports. This is due to the project meeting the required glideslope criteria from the nearest public-use facility according to 14 CFR Part 77 – Safe, efficient use, and preservation of the navigable airspace.

If any object will exceed 200 ft in height regardless of location, the object will need to be airspaced with the FAA 45 days prior to construction through the OEAAA portal below.

<https://oeaaa.faa.gov/oeaaa/external/searchAction.jsp>

Please let me know if you have any questions!

Thanks,

Julian L. Courtade
Chief Airport Inspector

100 North Senate Ave, N758-MM

Indianapolis, IN 46204

Cell: (317) 954-7385

Email: jcourtade@indot.in.gov



From: Payton Fischer <pfischer@hanson-inc.com>
Sent: Tuesday, April 13, 2021 12:21 PM
To: Courtade, Julian <JCourtade@indot.IN.gov>
Cc: Tamra Reece <TReece@hanson-inc.com>
Subject: Des No. 1900012 US 6/SR 51 Bridge Project at Muck Pocket – INDOT Project

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Payton Fischer

From: Duane Alverson <alverda@lakecountyin.org>
Sent: Thursday, April 22, 2021 7:43 AM
To: Payton Fischer
Cc: Tamra Reece; Jason Rowley; smason@indot.in.gov
Subject: RE: Des No. 1900012 US 6/SR 51 Bridge Project at Muck Pocket – INDOT Project

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Mr. Fisher,

I have tentatively reviewed the Early Coordination letter and offer the following comment;

If Grand Boulevard/North Lake Park Avenue between Central Avenue and 37th Avenue (Ridge Road) is used as the Local Detour Route I request Lake County/ Lake County Highway Department be notified as the portion of Grand Boulevard/North Lake Park Avenue between 36th Avenue north to 31st Avenue is a County Road.

The maintenance of traffic is anticipated to require a full closure with a detour route of approximately 16 miles utilizing US 6, SR 149, and US 20, coordination will be ongoing throughout the early coordination process. **A local detour route will be coordinated with the City of Lake Station. The project is anticipated to begin construction in 2024.**

Thank you for the opportunity to comment. If you have any additional questions for myself, please contact me.

Respectfully,

Duane A. Alverson, PE
Engineer



Lake County Highway Department
1100 East Monitor Street
Crown Point, IN 46307
Phone 219-663-0525
Fax 219-662-0497
alverda@lakecountyin.org

From: Payton Fischer [mailto:pfischer@hanson-inc.com]
Sent: Tuesday, April 13, 2021 11:25 AM
To: Duane Alverson <alverda@lakecountyin.org>